THE WATERSPOUT ON THE CHEVIOTS—BROKEN PEAT-BED.

BRITISH RAINFALL,
1893.

LONDON :

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—

1894.

BRITISH RAINFALL, 1893.

ON

THE DISTRIBUTION OF RAIN

OVER THE

BRITISH ISLES,

DURING THE YEAR

1893,

AS OBSERVED AT NEARLY 3000 STATIONS IN GREAT BRITAIN AND IRELAND,

WITH ARTICLES UPON VARIOUS BRANCHES OF RAINFALL WORK.

COMPILED BY

G. J. SYMONS, F.R.S.,

CHEVALIER DE LA LÉGION D'HONNEUR,

Secretary Royal Meteorological Society; Membre du Conseil Société Météorologique de France. Member Scottish Meteorological Society; Korrespondirendes Mitglied der Deutschen Meteorologischen Gesellschaft; Registrar of Sanitary Institute; Fellow Royal Colonial Institute; Membre correspondant étranger Soc. Royale de Médecine Publique de Belgique, Socio correspondiente Sociedad Cientifica Antonio Alzate, Mexico, &c.

AND

H. SOWERBY WALLIS, F.R.Met.Soc.

LONDON:
EDWARD STANFORD, COCKSPUR STREET, S.W
1894.

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ERRATA IN BRITISH RAINFALL, 1892.

Page 22. Headline *for* Winchfield, *read* Winchester.

,, 29. Berks, Reading (Russell St.) *No observations.* They have been forwarded since.

,, [18] Foot note *for* p. 82, *read* p. 81.

,, [89] Both notes from Driffield were from York Road.

,, [142] Scotland, Dumfries, *erase* Drumlanrig Castle ; return imperfect.

,, [167] Cerne Abbas (Melbury). *For* 28·80, *read* 32·33.

,, [211] Ennis. Height of gauge 3ft. 2in., *not* 18ft.

BRITISH RAINFALL, 1893.

No part of the annual volume is so pleasant to write as the Preface. There are two reasons for this: (1) Because I am always conscious that it would have been impossible to create and to maintain the rainfall organization without extreme kindness on the part of the observers towards the editor—and it is here only that I can appropriately express the thanks I always feel; (2) Because the Preface is always the last portion of the book written; and, fond as I am of the subject, the labour and anxiety requisite to keep up to our usual standard of accuracy are such that it is an immense relief to send the last sheet to the printers.

British Rainfall has now appeared for 34 consecutive years, and there is one respect in which this is disadvantageous—some persons seem to think that one volume is like another, and do not take the trouble to read the new one. There is a resemblance outside, and in the tabular matter inside; but having read every line of every one of the volumes, it is perhaps not presumptuous for me to assert that those who entertain that false idea little know what interesting facts their brother (or sister) observers report in these pages. I am not going to point out the most interesting facts; everyone knows that 1893 was noteworthy for other features besides the great drought. Mr. Sowerby Wallis and I have tried hard to produce a record worthy of the year; it is for others to decide whether or not we have succeeded.

G. J. SYMONS.

62, CAMDEN SQUARE, N.W.
July 21*st*, 1894.

REPORT.

In my last report I expressed two opinions as to the future, each of which has been negatived. I said that I feared that errors might be less rare than usual in *British Rainfall* 1892, the list of errata on page 6 shows that this fear was groundless. Secondly, I said that I hoped to deal with the question of monthly and seasonal rainfall during the autumn, but I never had time to do so.

Publications.—Besides the preparation of *British Rainfall* 1892, and of the *Meteorological Magazine*, we had much extra work of a similar character. The Meterological Council is preparing a publication for which it required some hundred sheets of tabular matter. The Royal Agricultural Society wished for a paper on the Drought, and for it we prepared several of the longest lists of droughts ever compiled, the paper was published in the *Quar. Jour. Roy. Agricultural Soc.* The Society of Arts requested a paper giving a general history of Rainfall work; this was prepared under the title of 'Rainfall Records in the British Isles,' read before the Society (Sir Frederick Bramwell, Bt., D.C.L., F.R.S., presiding) on Feb. 28th, 1894, and printed in the *Journal of the Society of Arts* for March 2nd.*

Old Observations.—It is to me very singular that many persons who possess long records of rainfall in past years, seem to think them of little value, and do not send me copies. Moreover, with a death roll of about 60 observers per annum, and rather more than double that number of stations failing from other causes, I am obliged to use every effort to prevent this loss—(say 200 observers per annum)—from seriously impairing the completeness of our staff. Although some of my correspondents are very kind in telling me of fresh observers, the majority do not, they seem to assume that I know of every observer—say in Perthshire—as well as they do who reside there, and if they see a rain gauge in a friend's garden, or the record of it in a local paper, they neither turn to the pages of *British Rainfall* to see whether it is quoted, nor even send me a post card reporting its existence. As I have just said, I do get some help of this kind, but I should welcome much more. Meanwhile the largest accession of new observers has always resulted from the courtesy of the successive Editors of *The Times*, who, for more than thirty years, have

* A few extra copies were struck off and while any remain they can be obtained gratuitously on written application to 62, Camden Square.

from time to time allowed me to address, through its columns, an invitation to those keeping rainfall records to communicate with me. In December last the following letter was inserted, and it not only brought in more than 50 new observers, but among them several who had been observing for long periods, and did not know that their old observations were of any value.

BRITISH RAINFALL.

To the Editor of the Times.

SIR.—The exceptional drought of the spring and summer of the present year probably induced many persons to commence a record of the fall of rain. Some of them probably are not aware that incomplete records are of any use, but, for such a season as we have lately passed through, they are.

I am very desirous that the record for the present year should be as nearly perfect as possible, and shall send at the end of this month blank forms to every careful observer known to me, but as above intimated there are probably some from whom I have not heard, if any such will forward name and address, I will see that proper blank forms are sent to them.

Your obedient servant,

G. J. SYMONS, F.R.S.

62, *Camden Square, N. W. Dec. 18th*, 1893.

Finance.—It seems to be generally admitted that money is scarce, and therefore I suppose we must not be surprised that the following subscription list shows a considerable falling off. There are three principal reasons for this. (1.)—All persons deriving income from land, have found that income decrease rapidly, and not a few have reduced or entirely stopped their subscription. (2.)—The Obituary is unusually long and (although some of the subscriptions (and records) have been continued by relatives) the deaths represent a net loss of quite £30 per annum. One deceased observer, Mr. Arthur Marshall, used to send £10 a year. (3.)—Many of the new observers are not aware that the work has absolutely no resources except the subscriptions of the observers.

Therefore, though we have increased our number of observers, we have not kept up the funds requisite for carrying on so large an organization as this rainfall one has become, nor obtained the means for providing that additional space which the proper care of the thousands of original records requires.

LIST OF ALL SUMS OF £1 AND UPWARDS RECEIVED IN PAYMENT FOR BOOKS, DIAGRAMS, &c., OR AS CONTRIBUTIONS TO THE GENERAL EXPENSES OF RAINFALL INVESTIGATIONS IN 1894.

CORPORATIONS AND WATER COMPANIES.

	£	s.	d.
Abersychan Local Board	1	1	0
Accrington Gas and Water Co.	1	1	0
Aire and Calder Navigation Co.	1	6	0
Aldershot Water Works Company	1	1	0
Bradford Corporation	1	1	0
Brighton ,,	3	0	0
Bristol ,,	1	1	0
Bury ,,	1	0	0
Liverpool ,,	1	1	0
Nottingham ,,	1	1	0
Reigate ,,	1	1	0
Southwark & Vauxhall Water Company	1	1	0
Weaver Navigation Trust	1	6	0

	£	s.	d.
Abercromby, The Hon. Ralph	1	0	0
Addington, Rt. Hon. Lord	1	1	0
Adie, Mrs.	1	16	6
Ainsworth, Col.	1	1	0
,, R. H., Esq.	2	10	0
Allison, R. A., Esq., M P.	1	0	0
Ames, F., Esq.	1	0	0
,, H. St. V., Esq.	1	1	0
Anderson, W. D., Esq., M.D.	1	0	0
Anstruther, Sir W. C., Bart.	1	0	0
Appach, Miss	1	1	0
Arkwright, J. H., Esq.	1	0	0
Armstrong, Rt. Hon Lord, F.R.S	1	10	0
Assheton, R., Esq.	1	10	0
Backhouse, J. E., Esq.	2	0	0
,, T. W., Esq.	5	15	0
Baines, L. T., Esq.	1	1	0
Baker, W. C., Esq.	1	1	0
Baker-Gabb, W., Esq.	1	1	0
Balfour, D., Esq., C.E.	1	0	0
Balme, E. B. W., Esq.	2	12	0
Bankes, J. S., E q.	1	1	0
Barne, Col. St. John (2 years)	2	0	0
Barnes, R. H., Esq.	1	1	0
,, R., Esq., M.D.	1	17	6
Barrington, R. M., Esq.	2	0	0
Bass, Messrs., & Co.	3	15	0
Battersby, Worsley, Esq.	1	0	0
Baxendell, J., Esq.	1	1	0
Bayard, F. C., Esq.	2	4	0
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,, H., Esq.	1	16	0
Bentley, G., Esq.	1	1	0
Benyon, R., Esq.	5	0	0
Berners, C. H., Esq.	1	1	0
Berridge, W., Esq.	1	10	0
Best, Colonel	1	5	0
Bickham, S. H., Esq.	1	0	0
Bicknell, P., Esq.	3	0	0
Biddell, G. A., Esq., C.E.	1	5	0
Birkbeck, W., Esq.	1	0	0
Black, Capt. W. C., of Kailzie	1	0	0
Blackburn, Prof.	1	0	0
Blackmore, R. D., Esq.	1	1	0
Blake, A. M., Esq.	1	1	0
,, W., Esq.	2	5	0
Blamire, Rev. W. H.	1	6	0
Blathwayte, Col.	1	15	0
Boscawen, Capt. Griffith	1	2	0
Boughton, Miss F. H. R.	1	1	0
Bradford, Rt. Hon. Earl of	1	0	0
Bradshaw, Admiral	2	10	0
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Brook, C. L., Esq.	3	3	0
Brooke, W., Esq	1	1	0
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,, Miss	1	0	0
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,, G., Esq., C.E.	1	1	0
,, Sir J., Bt.	1	0	0
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Courtown, Rt. Hon. Earl of	1	0	0
Cowper, Rt. Hon. Earl	1	1	0
Crewdson, W. H., Esq.	1	1	0
Croft, Miss Joyce	1	0	0
Cropper, J. Esq.	1	0	0
Cross, R., Esq.	1	10	0
Crossman, Gen. Sir W.	1	5	0
Crosthwaite, J. F, Esq.	1	0	0
Crowley, F., Esq.	1	10	0
,, P., Esq.	1	17	0
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Dalrymple, Hon. G.	1	0	0
Danson, J. T., Esq.	1	1	0
Darsie, J. R., Esq.	1	0	0
Davies, Rev. R. P.	1	0	0
Davis, T. H. N., Esq.	1	5	0
Davy, Mrs.	1	0	0
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Erskine, Sir T., Bart.	2	0	0
Esdaile, C. E. J., Esq.	1	0	0
Evans, F. G., Esq.	1	10	0
,, W. Llewellyn, Esq.	1	17	0
Ewart, Miss	1	0	0
Eyre, F. H. D., Esq.	2	10	0
,, Rev. W. L. W.	1	10	0
Falwasser, E. B., Esq.	1	1	0

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,, Oliver C., Esq.	1	0	0
,, Rev. W.	1	2	0
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,, Col.	1	5	0
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Forsyth, J. N., Esq.	1	0	0
Foster, R., Esq.	2	0	0
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Garnett, W., Esq.	5	0	0
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Goode, W., Esq.	1	1	0
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Grundy, R. A., Esq.	1	0	0
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Hamersley, Cecil, Esq.	1	0	0
,, Mrs.	1	1	0
Hamlyn, J., Esq.	1	1	0
Hankinson, R. C., Esq.	1	1	0
Hare, Mrs. Marcus (2 years)	1	0	0
Harris, C. E., Esq.	1	11	0
Hart, H. Chichester, Esq	1	1	0
Hatherly, N. C., Esq., M.D.	1	1	0
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Hertford, Most Hon. the Marq.	1	1	0
Hesketh, R. L., Esq.	1	1	0
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,, T. A., Esq.	1	1	0
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Horsman, Mrs.	3	3	0
Hoskins, Miss	1	0	0
Hounsom, W. A., Esq.	1	0	0
Howard, W. D., Esq.	10	15	0

	£	s.	d.
Hulkes, C. J. G., Esq.	1	0	0
Hunter, J., Esq., C.E.	1	1	0
Hurnard, S. F., Esq.	3	6	0
Hutchings, Rev. R. S.	1	2	0
I'Anson, Dr.	1	1	0
Ingram, Colonel	1	0	0
Jackson, M., Esq.	1	1	0
Jenkin, S. W., Esq., C.E.	1	0	0
Jenkyns, Lady	1	0	0
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„ D. J., Esq.	2	0	0
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Latham, Baldwin, Esq., C.E.	2	2	0
Laurie, Rev. Sir E., Bt.	2	2	0
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Macfie, R., Esq.	5	5	0
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Marshall, John, Esq.	2	0	0
„ Stephen, Esq	3	0	0
Marten, E. B., Esq, C.E.	1	17	0
„ E. D., Esq., C.E.	1	0	0
Mathew, Mrs.	1	1	0
Matthews, W., Esq., C.E.	1	10	0
Maw, C. T., Esq.	1	1	0
Mawley, E., Esq.	1	2	0
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„ A. S. Leslie, Esq.	1	0	0
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Metcalf, Miss	1	1	0
Mitchell, Alex., Esq.	2	2	0
„ F. J., Esq.	1	0	0

	£	s.	d.
Moore, Dr. J. W.	1	0	0
Morrison, W., Esq.	2	0	0
Morton, The Countess D. of	1	1	0
Mossman, R. C., Esq.	1	1	0
Mostyn, C, Esq.	1	1	0
Mount, Rev. C. B.	1	0	0
Myers, W. H., Esq., M.P.	1	1	0
Nash, Mr. W. R.	1	1	0
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Neumann, H., Esq.	1	0	0
Newbery, G. J., Esq.	1	1	0
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Northwick, Lady	1	1	0
Ormerod, Miss E. A.	2	18	0
Osler, Follett, Esq., F.R.S.	2	0	0
Otter, R. H., Esq.	1	1	0
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Parnell, J., Esq.	2	0	0
Parsons, H., Esq.	1	1	0
Paterson, Rev. T. M. B.	1	10	0
Pearson, Col.	1	1	0
„ F. F., Esq.	1	1	0
Pease, Sir J. W., Bt., M.P.	1	0	0
Peckover, Alexander, Esq.	1	18	0
Penfold, J. W., Esq.	1	0	0
Pennant, P. P., Esq.	1	1	0
Perry, F. C., Esq.	1	0	0
Philipps, Capt. Lloyd	1	1	0
Phillips, F. H., Esq.	1	0	0
„ E. P., Esq.	1	10	6
Phipps, Messrs. P., and Co.	1	10	0
Pike, L. W., Esq.	1	0	0
Pitt-Rivers, Gen., F.R.S (2yrs.)	1	0	0
Plater, Rev. C. E.	1	0	0
Plenderleath, Rev. W. C.	1	1	0
Pleydell, J. C. M., Esq.	1	1	0
Pocklington, Miss	1	3	0
Poulter, H. J., Esq.	2	2	0
Preston, A. E., Esq., C.E.	1	0	0
„ Rev. T. A.	2	0	0
Prigg, H. Victor, Esq., C.E.	1	1	0
Prince, C. L., Esq.	1	10	6
Prior, R. C. A., Esq., M.D.	1	0	0
Rankin, J., Esq., M.P.	2	0	0
Rathbone, Mrs. S. J.	1	1	0
Ravenshaw, T. E., Esq.	1	12	0
Rawlings, E., Esq.	1	0	0
Rayner, F., Esq., C. E.	1	1	0
Read, R., Esq., C.E.	1	0	0
Reynolds, J., Esq.	1	1	0
„ L. W., Esq.	1	1	0
Ridout, Rev. G.	1	1	0
Rivington, C. R., Esq.	2	2	0
Roberts, Dr. I., F.R.S.	1	10	0

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Roberts, J. F., Esq.	1	1	0
Robinson, Prof. H., C.E.	1	1	0
,, J., Esq.	1	1	0
Rofe, H., Esq., C.E.	1	11	0
Rogers, J. T., Esq.	1	0	0
Ross, Rev. J. C.	1	6	0
Rowcliffe, E. S., Esq.	1	0	0
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Sidebottom, J. Esq.	2	2	0
,, Col., M.P.	1	0	0
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Silver, S. W., Esq.	2	2	0
Sing, Joshua, Esq.	1	0	0
Slade, F., Esq., C.E.	1	1	0
Slatter, T. J., Esq.	1	1	0
Smart, F. G., Esq.	2	2	0
Smith, B. Woodd, Esq.	1	1	0
,, Harold, Esq.	2	2	0
,, Hon. F., M.P.	3	0	0
,, Rupert, Esq., C.E.	1	1	0
Smyth, J., Esq., C.E.	1	10	0
Snowden, Rev. H. C. V.	1	0	0
Soames, late Rev. C.	1	10	0
Southall, H., Esq.	1	0	0
,, John T., Esq.	1	1	0
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Spooner, Albert, Esq.	1	1	0
Stanton, Miss R.	1	0	0
St. Benedict's Abbey	2	2	0
Stewart, Sir Mark J., Bt., M.P.	1	1	0
,, the Hon. Mrs. (2 yrs.)	2	10	0
,, Rev. W. E.	1	10	0
Stirling, Colonel	1	0	0
Stocker, Rev. A. H.	1	0	0
Stone, W. H., Esq.	1	0	0
Stotherd, Gen., C.B.	1	0	0
Straker, J. H., Esq.	1	0	0
Stubs, Peter, Esq.	1	2	0
Sturge, R. F., Esq.	1	0	0
Sturt, Col.	2	0	0
,, Gen.	2	0	0
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Swan, R., Esq.	1	1	0
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Tawney, Miss	1	0	0
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Thomson, G. Rodie, Esq.	3	0	0
Timms, H. A., Esq.	1	0	0
Topley, W., Esq., F.R.S.	1	1	0
Tuckett, F. F., Esq.	1	5	0
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Tyndall, W. H., Esq.	1	1	0
Vaughan, Cedric, Esq., C.E.	1	12	6
Venables, Mrs. Lister.	1	1	0
Waddingham, T. J., Esq.	1	1	0
Wainwright, B. C., Esq.	2	12	0
Waldegrave, Hon. & Rev. H.N.	1	10	0
Walker, A. O., Esq	1	0	0
Ward, H., Esq.	1	7	0
Wardale, Rev. J.	1	0	0
Waring, Colonel, M.P.	1	0	0
Watkins, Mr. H.	1	10	0
,, J., Esq.	1	0	0
Weston, J., Esq.	1	12	0
Whitaker, B. I, Esq.	1	0	0
White, General	1	0	0
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Wilkinson, W. King, jun., Esq.	1	1	0
Williams, Dr. Theodore	1	5	0
,, J. A. B., Esq., C.E.	1	1	0
Williamson, B., Esq.	1	4	0
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Wood, Rev. J. Cooper	1	1	0
,, J. G., Esq.	1	1	0
,, T. Travers, Esq.	1	1	0
Woodd, Basil T., Esq.	1	0	0
Woodhouse, A. J., Esq.	1	1	0
Wortham, H., Esq.	1	15	0
Wright, Col. I.	1	1	0
Yool, H., Esq.	2	2	0
Young, F. C., Esq.	1	1	0
,, W. B., Esq.	1	5	0

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THE WATERSPOUT (OR CLOUD BURST) ON THE CHEVIOTS.

In Lat. 55° 25′ 30″ N. and Lon. 2° 8′ 45″ W., that is to say, in Northumberland, a little E. of the Cheviot range, and 4 miles S. of Cheviot Hill, there is a hill (2000 ft. above sea level) called Bloody Bush Edge—owing probably to some now forgotten Border fight. As a further help to finding it, we may state that it is very slightly to the N. of a line joining Rothbury in Northumberland to Jedburgh in Roxburghshire, about 12 miles from the former, and 16 from the latter.

Like most English land at that elevation it is covered with a layer of peat, on the surface of which coarse grass gives wholesome, but not luxuriant pasture to many sheep. Although called an "Edge," we do not see any indications that the hill is precipitous —on the contrary, we should describe it as gently undulating.

On July 2nd, 1893, the weather (which had been very hot for a week) became oppressive and sultry; about 10 a.m. the clouds became very large, and seemed to come from three different quarters and meet over the east side of Bloody Bush Edge with a swirling motion. Distant thunder was heard about 11 a.m., and about 1 p.m. or a few minutes after, the cloud broke, though no one seems to have seen exactly what happened, except that one person says that "the whole hill and parts of the adjoining hills were covered with a sheet of water." This seems a very strong statement, but the locality has been visited and very carefully photographed by the Rev. J. J. Muschamp Perry; and the nearest resident, Mr. Douglas, has supplied a very good plan of the effects, drawn to scale from actual measures, and when we have epitomized them, and such further information as we have been able to collect, we think that our readers will hesitate to declare the statement to be exaggerated. We quote first a few paragraphs from the account sent by Mr. Perry to the *Field*.

FALL OF A WATERSPOUT ON THE CHEVIOT RANGE.

"A hill in the Cheviot range, about three miles S. by W. from Cheviot Hill, is known by the name of 'Bloody Bush Edge,' and is

so marked on the Ordnance map. A recent visit to the hill shows that it is literally torn to rags and tatters. For a space of at least 30 acres or 40 acres the upper layer of peat has been ploughed up to the depth of some five feet, and the moor-bed beneath laid bare. Enormous masses of this dark peaty soil have been hurled right and left, piled one on the top of another, and a vast quantity of blocks of earth have been carried hundreds of yards down the hill, so as to present the appearance of a broad stream of blocks.

"The principal fall occurred within the watershed of the Breamish, which on this occasion swept away its bridges, and destroyed long stretches of the road that had been confidently built out of the reach of its waters. It came down with a suddenness and power for which neither the memory of the "oldest inhabitant" nor the rumour of past tradition could find any parallel.

"On my recent visit to Bloody Bush Edge I took a series of stereoscopic photographs of the scene of the fall of the waterspout. I have already pointed out that the water descended in two streams, striking the hill side at points separated by about 50 yards from each other.

"The flood in the Breamish came down like a wall, and rose and fell again in the space of an hour and a half.

"It is simply appalling to contemplate what would have been the result if the waterspout, instead of falling in the wilds of the Cheviots,had descended upon the hill side of some thickly populated town.

JEVON J. MUSCHAMP PERRY.

"*St. Paul's Vicarage, Alnwick, Nov. 22nd.*"

THE FLOOD ON THE BREAMISH.

A VISIT TO THE LANDSLIP.

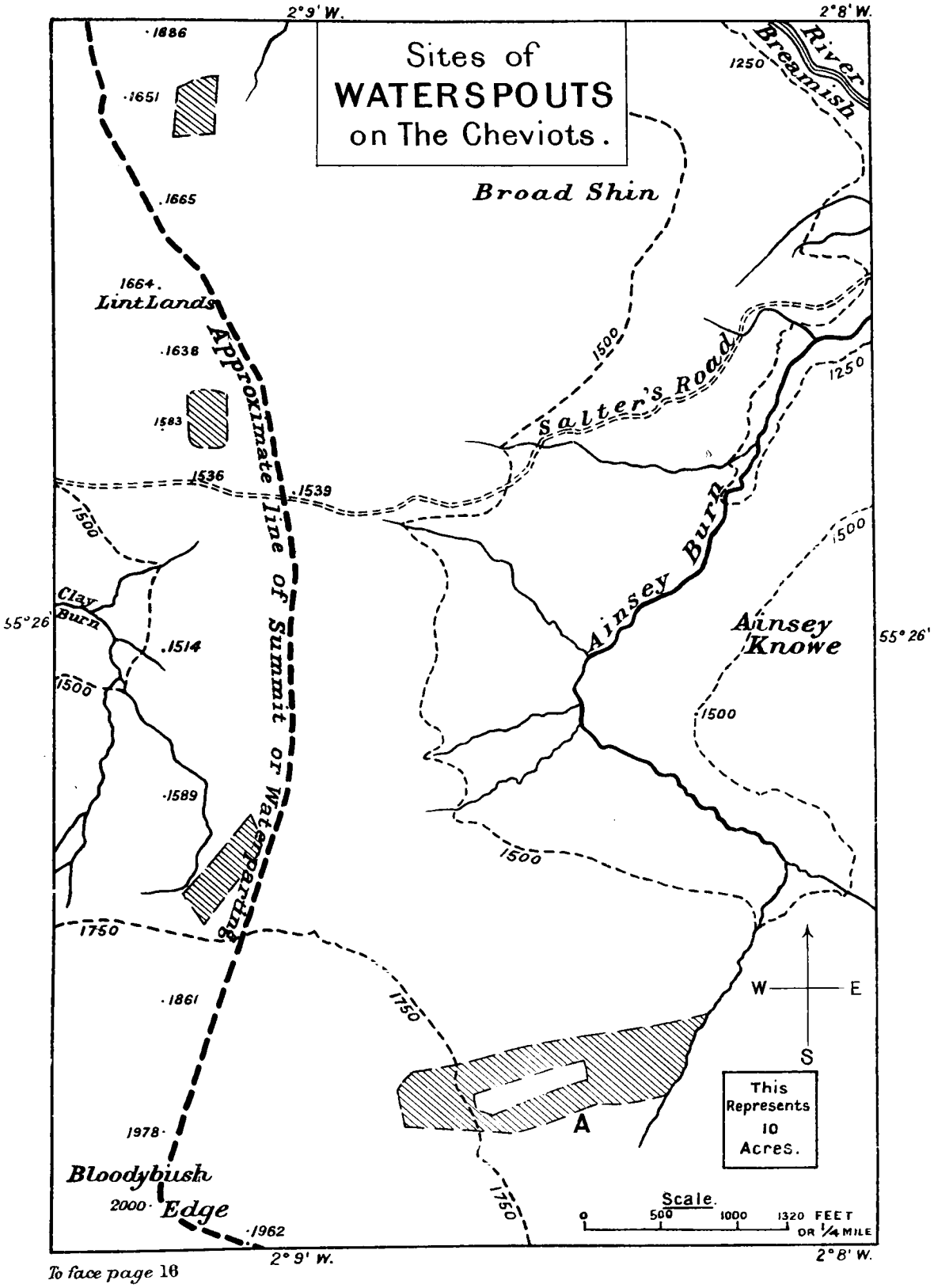
"Having heard of the enormous flood on the Breamish and the destruction caused by it, I took a trip up that river the other day to see the landslip caused, as supposed, by a waterspout. Starting from Hedgeley Station, and crossing the very beautiful and substantial iron bridge, taking the footpath to Brandon and right on to Ingram, I found unmistakeable traces of a monster flood, as the haughs are all covered with moss, trees, and fragments of bridges. Arriving at Ingram, I found a staff of workmen busy erecting a handsome iron bridge with stone bearings at the ends and iron pillars in the middle instead of the wood bridge that has done such good service in the past, and was wrecked by the flood. Leaving Ingram, and wending my way towards Greenside Hill, I came to Peggy Bell's Bridge, which also is wrecked, and a much higher one would have received the same fate. Passing on towards Linhope, the summer

seat of Major Joicey, and crossing the water near the keeper's house, I noticed much damage to the wire fences and stone walls, which in many places had been carried away. Towards Blakehope the scenery becomes very wild ; indeed, before reaching Blakehope I found the road completely washed away in different places, stopping all traffic with carts ; it is scarcely passable even for a pedestrian ; I had almost to creep along the hill side. On reaching Low Blakehope, I found the field above the house in utter desolation. A great deal of the stone wall is taken away by the flood, which has swept the space at the foot of the hills, carrying everything before it. I was told that two sheep came sailing down the middle of the field ; one managed to escape, but the other was carried away by the current. It must have been rather alarming to those few dwellers in this isolated part. It may seem strange, but nearly all the water that caused such destruction, I was informed, fell mostly in a small space. Having got instructions, I passed on to the centre of attraction—the landslip. Leaving High Blakehope a little to my right, and going in a southerly direction, I soon came in sight of what proved to be the landslip. It had rather a strange appearance at a distance. On approaching it from below you first come to a great space covered with moss to a considerable height, and large lumps of unbroken moss are lying in all directions. Passing up towards the top the lumps get very large. Some of them are several tons in weight, and the force of water must have been very great. My opinion is, that if the cloud had not got exhausted when it did, a great deal more of the hill side would have shot away, as there are a great many very large cracks above it. Some of them are about 7½ feet in depth, about 1 yard wide, and 40 or 50 yards long. I find it impossible to describe it, but people will find it well worth seeing, although there is a good deal of hard labour before you can reach it. This rare spectacle is on the Bloody Bush Edge on His Grace the Duke of Northumberland's land, and on Low Blakehope farm.—*Alnwick Guardian*, 29/7/93.

HARBOTTLE.—A very striking scene was witnessed on Sunday, July 2nd in Upper Coquetdale. About two o'clock in the afternoon a heavy thunderstorm, accompanied by great rain, broke up in the hills above Alwinton, and making the glens about there its channel, literally poured down the small burns in a very short space of time. The River Alwin, from the Heigh to the fields near the Vicarage came down in such force, carrying sheep and weirs before it, that it kept the Coquet back for a long time, and brought the river below Alwinton into an alarming size. The flood bore on to Harbottle, spreading out by Holystone and Hepple, and going on down the Coquet like a moving wall. Many persons in the district say that such a scene for suddenness, and unexpectedness, has not been witnessed for many years.—*Alnwick Gazette.*

INGRAM.—A heavy thunderstorm on the western hills caused the Breamish to rise 40 feet on Sunday afternoon in half-an-hour. Two bridges at Ingram were carried away, while serious damage has been done to the banks and roads. Mr. Armstrong, Brandon White House, lost several sheep.—*Alnwick County Gazette*, July 8th.

To these we add a few words based upon the MS. account with which Mr. Perry has favoured us, so as to render the accompanying



To face page 16

map, and the view (which forms the frontispiece to this volume), and all the facts as intelligible as possible.

The principal area is a double and parallel one—the intervening undisturbed band of peat being about 180 feet wide and 600 or 800 feet long. In the disturbed area, although some of the peat is left behind, most of it was carried down towards the stream in blocks some of which were about 6 ft. thick and from 30 to 60 feet across, each of which therefore would contain about 10,000 cubic feet and weigh several tons.

The view is taken from the spot marked A on the map, on the south side of the southern track of disturbance, and the camera was carefully levelled, so that the view should show the inclination of the ground; that it does so very accurately is proved by the Ordnance contour lines which give a fall of about 1 in 8, while the photograph gives about 1 in 7.

It will be seen that the principal area drains into the Ainsey Burn, a tributary of the Breamish (which is said to have risen 40 feet!) The area at the top of the map drains into another tributary of the Breamish, but the two central ones, on the west side of the water parting, drain to the Clay Burn, which runs into the Coquet, and thus we see why damage was done by both the Coquet and the Breamish.

Low Blakehope is the nearest house, about $1\frac{1}{2}$ miles E. of the principal area; we heard that there the rainfall had been fifteen inches. As we did not know of any rain gauge at Low Blakehope, we made enquiries and were informed that a previously empty bucket, exposed to the rain, was found to contain 15 inches of water. Making full allowance for the shelving sides, this could hardly represent less than 8 inches, and that enormous amount is reported to have fallen $1\frac{1}{2}$ miles from the focus of the mischief.

It is very aggravating to have an occurrence like this, and to have no trustworthy record of the amount of water that fell, but even a Cumberland pattern rain gauge, 4 ft. long and buried 3 ft. in the peat, if it had been planted in the western portion of the principal area, would evidently have been floated away towards, or down, the stream.

In conclusion, we feel that our readers as well as ourselves are much indebted to the Rev. J. J. Muschamp Perry for information, and for his excellent photographs, and to Mr. Douglas for his careful measurements and map of the area affected.

HEAVY FALLS OF RAIN AT CAMDEN SQUARE, 1858–1894.

WE have often expressed regret at the fact that no one yet knows what relation exists between the total yearly rainfall at any station, and the greatest fall probable at that station in any one day. Or, to put the problem in another form, no one yet knows what is the relation between the percentage which the maximum fall in a year may be expected to be at two stations, one with an average fall of 25 inches, and the other with a fall of 50 inches.

We have long desired to investigate this, but time has not permitted. We have, however, been working up the observations at Camden Square, for which station we possess two classes of records—(1) those from the ordinary gauge such as almost every observer has, read daily at 9 a.m.; and (2) those from the self-recording and storm gauges.

Dealing, first, with the records of the ordinary gauge. We have had tabulated all the entries of 1·00 in. or upwards, and give them in the following table:—

Rainfalls exceeding 1 *inch in* 24 *Hours during the Years* 1858—94.

Year.	Date.	Amount. inches.	Year.	Date.	Amount inches.
1859	June 12th	1·01	1879	January 1st	1·12
	September 26th	1·66		May 28th	1·30
1860	May 12th	1·10		June 24th	1·07
1861	November 13th	1·42		September 23rd	1·49
1863	June 5th	1·02	1880	June 25th	1·13
	June 18th	1·55		September 11th	1·33
1864	November 23rd	1·01		September 14th	1·18
1865	January 26th	1·12	1881	January 18th	1·08
	August 23rd	1·01		October 22nd	1·03
	October 22nd	1·05	1882	April 25th	1·08
1866	January 10th	1·20	1883	July 14th	1·43
	June 30th	1·33	1884	June 5th	1·47
1867	May 20th	1·03		June 6th	1·00
	July 25th	1·82	1885	September 10th	1·48
1869	November 27th	1·03	1886	May 12th	1·18
1871	July 10th	1·23		May 24th	1·27
	September 29th	1·22		December 26th	1·82
1872	October 21st	1·05	1887	August 17th	1·44
1873	October 12th	1·04	1888	August 1st	1·39
1875	July 14th	1·29	1889	May 26th	1·08
876	December 23rd	1·61	1890	July 17th	1·67
878	April 10th	2·56	1891	August 20th	1·44
	May 7th	1·71	1892	August 27th	1·71
	June 23rd	3·28		October 30th	1·11
	June 30th	1·13	1893	October 9th	1·16
	August 3rd	1·41	1894	July 10th	1·12

The first thing that is obvious is the irregularity in the number of heavy falls per annum; for instance, in the four years preceding June, 1871, there was only one fall which reached an inch (and it was only 1·03 in.); on the contrary, we have in the four years ending with June, 1881, 13 such cases, including the only two which exceeded 2 inches and 3 inches respectively.

The are altogether 52 falls exceeding an inch.
10 „ „ an inch an a half.
2 „ „ two inches.
1 fall „ three inches.

and as these occurred in 37 years, it follows that the average is about 3 falls exceeding an inch during each two years, or putting it the reverse way, one and a-half falls per annum of between an inch and an inch and a-half. Or it may be put in another form. According to the observations of the past 37 years at Camden Square, with a mean rainfall of about 25 inches, there will probably be in 100 years—

141 falls exceeding one inch.
5 „ „ two inches.
3 „ „ three inches.

The mean fall at Camden Square for the 36 years is 25·62 in.; hence it follows that for that station we have—

		Absolute Max.		Mean Max.	
Mean Rainfall.		Amount.	Per cent.	Amount.	Per cent.
		in.	in.	in.	in.
25·62	.....	3·28	12·8	1·34	5·2

But there are two sources of complication latent in the above—that introduced (1) by the exclusion of maxima when they are below an inch; (2) by quoting *all* falls above an inch we have in some years several entries, instead of merely the absolute max. for the year. Without in the least underrating the importance of the list as given above, we think that, in working up returns from stations with rainfall differing widely in character and amount, it will be necessary to confine our attention to the absolute max. for the year, be it what it may. This, of course, restricts the number of entries by turning out all but the highest in each year, and at Camden

Square it brings in half-a-dozen below an inch, in the years when no fall of an inch occurred. The list then becomes—

Absolute Maximum in each Year during the Years 1858–94.

Year.	Date	Amount. inches.	Year.	Date.	Amount. inches.
1858	May 24th	·94	1877	November 11th	·88
1859	September 26th	1·66	1878	June 23rd	3·28
1860	May 12th	1·10	1879	September 23rd	1·49
1861	November 13th	1·42	1880	September 11th	1·33
1862	August 16th	·94	1881	January 18th	1·08
1863	June 18th	1·55	1882	April 25th	1·08
1864	November 23rd	1·01	1883	July 14th	1·43
1865	January 26th	1·12	1884	June 5th	1·47
1866	June 30th	1·33	1885	September 10th	1·48
1867	July 25th	1·82	1886	December 26th	1·82
1868	May 29th	·93	1887	August 17th	1·44
1869	November 27th	1·03	1888	August 1st	1·39
1870	March 3rd	·95	1889	May 26th	1·08
1871	July 10th	1·23	1890	July 17th	1·67
1872	October 21st	1·05	1891	August 20th	1·44
1873	October 12th	1·04	1892	August 27th	1·71
1874	September 30th	·99	1893	October 9th	1·16
1875	July 14th	1·29	1894	July 10th	1·12*
1876	December 23rd	1·61			

We hope that long before this time next year we shall be favoured with several complete lists like the above; it therefore becomes necessary to consider how the information can be published in the most compact and comparable form. It would, we think, be a pity to reduce all the records to the length of the shortest, and yet it seems reasonable to suppose that a record covering 100 years would be likely to contain a more exceptional maximum than a record of one-fourth of that duration, but we do not think that length of record would seriously affect the *mean* maximum.

Possibly some of the modes of expressing the facts which we have adopted earlier in this paper may be suitable, but we feel sure that, whatever may be added to it, we cannot give *less* than the following particulars:—

Div.	County.	Station.	Altitude.	Duration of Record.	Mean Rainfall.	Maximum Fall.			
						Absolute.		Average.	
			ft.	years.	in.	in.	Per cent.	in.	Per cent.
I.	Middlesex.	London, Camden Sq.	111	37	25·62	3·28	12·8	1·37	5·3

We do not think that it is anything more than a chance that the above extreme is, as regards both amount and percentage, similar to the mean of columns 5 and 6 of Table IV. on p. [135], the figures being respectively 3·28 and 3·70, and 12·8 and 12·3.

* May be exceeded later in the year.

With reference to the second subject mentioned in the beginning of this paper, "records from the self-recording and storm gauges," we can, of course, expect help only from those provided with such instruments. For some, to us unknown, reason, self-recording rain gauges seem to be regarded merely as machines for determining how much rain falls in each civil hour. That is well; but they are capable of doing much more than that.

The Meteorological Council had the finest set of self-recording rain gauges the world has ever seen, and years ago we believe that they printed reduced copies of the traces, but they never separated and discussed the storm rains, and so did not utilize their splendid materials. Latterly they have published merely the hourly values, which for the study of intense rains are useless.

It is to M. Houdaille, of Montpellier, that the honour of first fully utilising a recording rain gauge is, we believe, due. At any rate, it is from his diagrams in the Annual Reports of the *Commission Météorologique d' Hérault*, published under the direction of Professor Crova, that we have taken the suggestion for representing in a compact form the heaviest rains at Camden Square since January, 1868. We desire to concentrate attention on the results, and therefore will dismiss in a few words the subject of how the curves given on the diagram facing page 22 have been obtained. Some are from eye observations of the two patterns of Storm Rain Gauge: the first, that represented in *British Rainfall*, 1868, p. 28 and the second that in *British Rainfall*, 1877, p. 32; and two patterns of Recording Gauge, viz., Casella's, as shown in *British Rainfall*, 1878, p. 42, and the cheaper of the two forms supplied by Messrs. Richard Frères. The working up of the data represented upon the diagram has given us some ideas as to the direction in which recording rain gauges must be modified, but those ideas must be brought into a concrete form before publication.

Turning now to the diagram. The thick vertical lines represent hours, the thick horizontal ones represent inches, so that if any curve started from the bottom of the diagram and went to the top it would represent a continuous rain of which the total was six inches; almost needless to say that there is no such curve. The curve for June 23rd, 1878, the greatest rain we have had here, will serve to explain the mode of representation adopted, and attention to it will enable anyone to read off all the others. It begins near the bottom left hand corner—2 P. indicates 2 P.M.; it will be found that there are nine light vertical lines between each thick one, therefore there are

ten spaces to an hour, consequently, of course, each space represents six minutes. Counting back from the 2 p.m. line we shall find that the curve commences at 28 minutes to 2, *i.e.*, at 1.32 p.m. ; that one inch had fallen by 1.56 p.m., another inch by 2.7 p.m. that the rain ceased absolutely from 2.12 p.m. till 2.45 p.m., that a third inch had fallen by 2.55 p.m., and that the fall ceased at 3.2 p.m. when 3·28 in. had fallen.

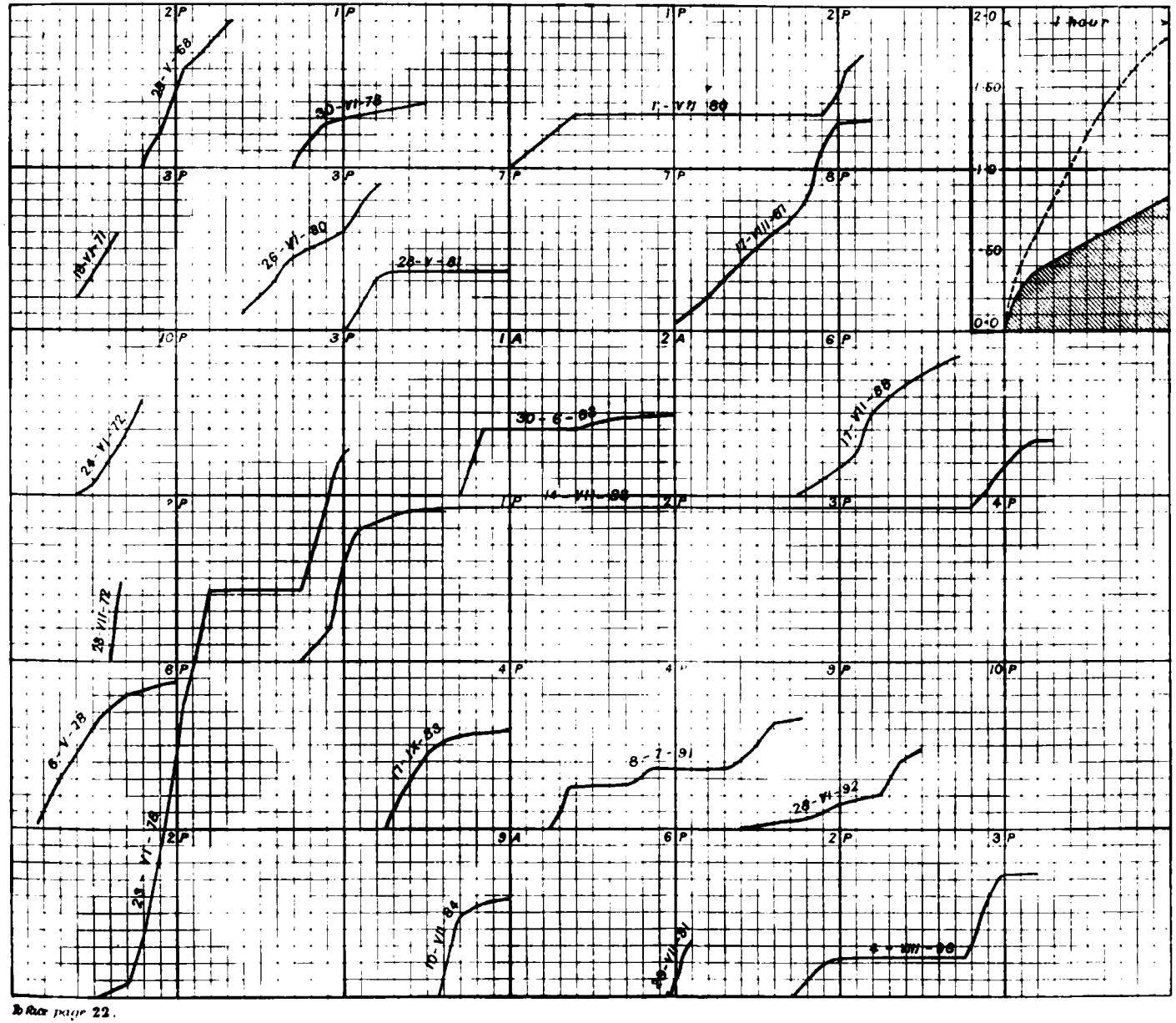
We do not know that any further explanation is necessary, except that the entry ?P. on July 23rd, 1872, indicates that the fall occurred in the evening, but that the hour was not recorded. It will be seen that the curves were drawn consecutively, beginning at the left hand top and going downwards, then returning to the top and so on.

It was somewhat difficult to decide which rains were entitled to representation, and which were not ; the definitions finally adopted, and which are fulfilled by all the twenty rains represented, were (1) the rate of fall must, during some portion of the time, have been greater than one inch per hour. (2) No fall of less than a quarter of an inch to be plotted.

The inset diagram in the top corner will doubtless be recognised by most of our readers as the one given annually in the later part of the volume, in illustration of the article on "Heavy Falls in Short Periods," and it is inserted here, drawn to the same scale as the rest of the curves, to facilitate comparison.

We will not, by offering any commentary, divert attention from the diagram, which we believe will afford data useful to both architects and engineers.

THE HEAVIEST RAINS DURING 26 YEARS (1867-93) AT CAMDEN SQUARE, LONDON.



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EXPERIMENTS ON EVAPORATION AT SOUTHAMPTON WATER WORKS, AND AT CAMDEN SQUARE.

We are very glad that Mr. Matthews has continued his record of the evaporation at Southampton, and that the observations there and at Camden square are perfect throughout. The whole of the daily figures are given on pages 25 and 26.

The construction of, and the mode of reading off, the tanks having been fully described last year, there is no need to repeat the description. It will, however, be well to consider two fresh branches of the subject (1), the relation existing between the amount of evaporation at the two stations; and (2), the records during the great drought.

	1892.			1893.			1894.		
	Camden Square	Southampton.	Ratio.	Camden Square	Southampton.	Ratio.	Camden Square	Southampton.	Ratio.
	in.	in.		in.	in.		in.	in.	
January ..	·05	—	—	+ ·03	+ ·08	0·37	+ ·04	+ ·17	0·24
February..	·09	·53	5·88	·01	·57	57·00	·28	·58	2·07
March ...	·60	1·20	2·00	·92	1·56	1·70	·83	1·52	1·82
April	1·88	2·94	1·56	2·33	3·21	1·38	1·17	1·92	1·64
May.....	2·65	3·47	1·31	3·06	3·70	1·21	2·10	3·03	1·43
June	3·05	3·25	1·08	3·62	4·03	1·11	2·48	3·24	1·31
July.....	2·84	3·39	1·19	3·12	3·64	1·17			
August ...	2·20	2·90	1·32	2·85	3·33	1·17			
Sept.	1·01	1·59	1·57	1·48	2·13	1·44			
Oct.....	·36	·87	2·42	·70	1·03	1·47			
Nov.	·02	·22	11·00	·11	·22	2·00			
Dec.	·20	·08	0·40	·01	·02	2·00			
Year	14·95	—	—	18·18	23·36	—	—	—	
Feb..Dec.	14·90	20·44	—	—	—	—	—	—	
Jan.-June	—	—	—	—	—	—	6·82	10·12	

	Camden Square.		Southampton.		Ratio.
Gross Total.....	39·90 in.	.....	53·92 in.	.....	1·35

Last year we had less than twelve months' record from Southampton, and therefore said "it would be premature to speak decisively from a few months' records, but it seems probable that the evaporation at Otterbourne will prove very similar to that at Strathfield Turgiss (*British Rainfall*, 1889, p. 35), viz., 18 inches, or four or five inches more than that at Camden Square."

We have now 29 months, and they are summarised for comparison in the preceding table—the final result is that including the year of greatest evaporation (1893) at Camden Square, the mean there for nine years is 14·71 inches; recognizing the exceptional character of 1893, the mean for Camden Square may be taken, as it was last year, as 14·50 inches, if so, then—

14·5 × 1·35 = 19·58 inches = the mean evaporation at Otterbourne.

Thus we have for similar apparatus—

Camden Square, London	14·50 inches
Strathfield Turgiss, Hants	18·03 ,,
Otterbourne, Hants	19·58 ,,

the amount being least in the most sheltered position.

We must now examine the records in the dry springs of 1892 and 1893—

	Camden Square. Mean of 7 years. (1885—91)	1892	1893
March	·64 ...	·60 ...	·92 ×
April	1·43 ...	1·88 × ...	2·33 ×
May.....	2·04 ...	2·65 ...	3·06 ×
June	2·79 ...	3·05 ...	3·62

Not only is every month but one, considerably above the average, but all those marked with a × are unprecedentedly large for their respective months.

Abstract of Camden Square Evaporation Results, 1885—94.

TOTAL IN EACH MONTH AND YEAR.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1885.	·20	·38	·86	1·71	1·98	2·77	3·29	2·25	1·13	·77	·17	·11	15·62
1886.	·23	·13	·53	1·59	1·78	2·93	3·12	1·86	1·46	·63	·27	·12	14·65
1887.	+·07	·29	·76	1·72	1·79	3·68	3·76	2·54	1·25	·78	·21	·07	16·78
1888.	·07	·37	·48	1·16	2·71	2·24	1·44	1·90	1·17	·60	·43	·03	12·60
1889.	·03	·18	·62	1·07	1·76	2·97	2·34	1·96	1·52	·42	·29	+·13	13·03
1890.	·08	·19	·50	1·44	2·63	2·14	2·33	2·02	1·27	·79	·31	*·04*	13·74
1891.	*·03*	·16	·73	1·35	1·66	2·83	2·34	1·67	1·00	·62	·20	*·22*	12·81
1892.	·05	·09	·60	1·88	2·65	3·05	2·84	2·20	1·01	·36	·02	*·20*	14·95
1893.	+*·03*	·01	·92	2·33	3·06	3·62	3·12	2·85	1·48	·70	·11	·01	18·18
1894.	+·04	·28	·83	1·17	2·10	2·48							

MAXIMUM IN EACH MONTH AND YEAR.

1885.	—	·04	·06	·12	·15	·14	·17	·14	·11	·05	·02	·04	·17
1886.	·01	·04	·08	·12	·15	·16	·22	·13	·10	·07	·04	·04	·22
1887.	·04	·05	·06	·11	·14	·23	·18	·16	·08	·05	·05	·02	·23
1888.	·04	·04	*·05*	·09	·17	·17	·10	·13	·09	·05	·06	·02	·17
1889.	·02	*·04*	·05	·08	·13	·18	·15	·11	·10	·04	·04	·04	·18
1890.	·04	·04	·07	·13	·19	·17	·15	·12	·09	·07	·08	—	·19
1891.	—	·02	·07	·13	·15	·18	·15	·12	·07	·08	·06	·05	·18
1892.	—	—	·06	·12	·19	·17	·18	·13	·08	·06	·03	—	·19
1893.	—	·02	·07	·14	·19	·21	·17	·17	·10	·06	·03	·05	·21
1894.	—	·05	·07	·08	·16	·20							

DAILY EVAPORATION AT OTTERBOURNE WATERWORKS PUMPING STATION.

(Near SHAWFORD, HANTS.)

Lat., 51° 0′ 28″ N. ; Long., 1° 19′ 55″ W. ; Tank, 6′ 0″ square, 2′ 0″ deep ; Edge, 3″ above ground ; Ground level, 111½ ft. above Ordnance datum.

	1893.						1894.					
Date.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1	·16	·10	·04	·01	+·01			+·03	·01	·07	·07	·02
2	·15	·14	·07	·05	·00			·02	·02	·07	·02	·10
3	·04	·06	·09	·05	·01	·05		·01	·04	·11	·09	·06
4	·19	·12	·07	·07	·02		+·10	·02	·05	·09	·16	·06
5	·24	·15	·09	·01	·04			+·01	·01	·10	·06	·08
6	·09	·05	·07	·10		+·04		+·03	·02	·08	·08	·10
7	·14	·07	·12	·03	·07	·02		·04	·01	·03	·10	·08
8	·17	·15	·13	·08		+·02		·04	·00	·06	·09	·03
9	·17	·15	·12	+·03	·05	·01		·00	+·01	·12	·04	·11
10	·17	·14	·08	+·02	·01	+·03		·08	·00	·07	·03	·10
11	·07	·11	·11	·04	·03	·12		+·01	·06	·06	·02	·15
12	·14	·11	·10	·04	·04	+·01	+·01	·06	·14	·02	·15	·08
13	·08	·11	·07	·00		·00	·05	·08	·08	·09	·08	·07
14	·11	·09	·11	+·02	·01	·02	+·01		·04	·09	·12	·15
15	·09	·08	·06	·01	·01	+·04	+·03	·01	·03	·05	·05	·09
16	·07	·14	·05	·04	+·10	·02	+·09	+·01	·08	·06	·07	·10
17	·12	·15	·08	·17	·05	·02	·03	·02	·06	·05	·19	·05
18	·03	·09	·03	·04		·00	·01		·02	·05	·23	·09
19	·08	·16	·08	·04	+·07	+·07	+·05		·02	·06	·09	·09
20	·04	·06	·09	·02		+·08	·04	·12	·04	·04	·11	·07
21	·07	·13	·07	+·01	+·03		·01		·08	·06	·11	·10
22	·05	·08	·07	·04		·12	·02		·06	·08	·14	·12
23	·14	·05	·01	·04	·06			·01	·07	·01	·09	·11
24	·15	·13	·08	·03		+·06	+·08	·04	·06	02	·13	·11
25	·15	·14	·05	·02	+·03	·03	+·05	+·01	·09	·04	·15	·12
26	·13	·09	+·01	·07	·05	+·02	·00	·06	·10	·07	·18	·10
27	·11	·12	·05	·02		·01	·02	·05	·03	·06	·14	·22
28	·10	·14	+·01	+·01	+·01	+·02	·06	·02	·09	·02	·01	·20
29	·05	·09	·08	·03	·01		+·01	—	·09	·11	·08	·21
30	·17	·06	·08	·07	·01	+·01	+·02	—	·05	·08	·10	·27
31	·17	·07	—	·00	—		·04	—	·08	—	·05	—
Total	3·64	3·33	2·13	1·03	·22	·02	+·17	·58	1·52	1·92	3·03	3·24

NOTE.—Water level kept at about ground level. Observations at 9 a.m. Totals for each month checked from first and last reading. Rainfall and water added or subtracted during the month.

When days are bracketed the tank was frozen, or contained ice floating on surface. Sign + indicates condensation.

WM. MATTHEWS, C.E.,
Southampton.

DAILY EVAPORATION AT CAMDEN SQUARE, LONDON.

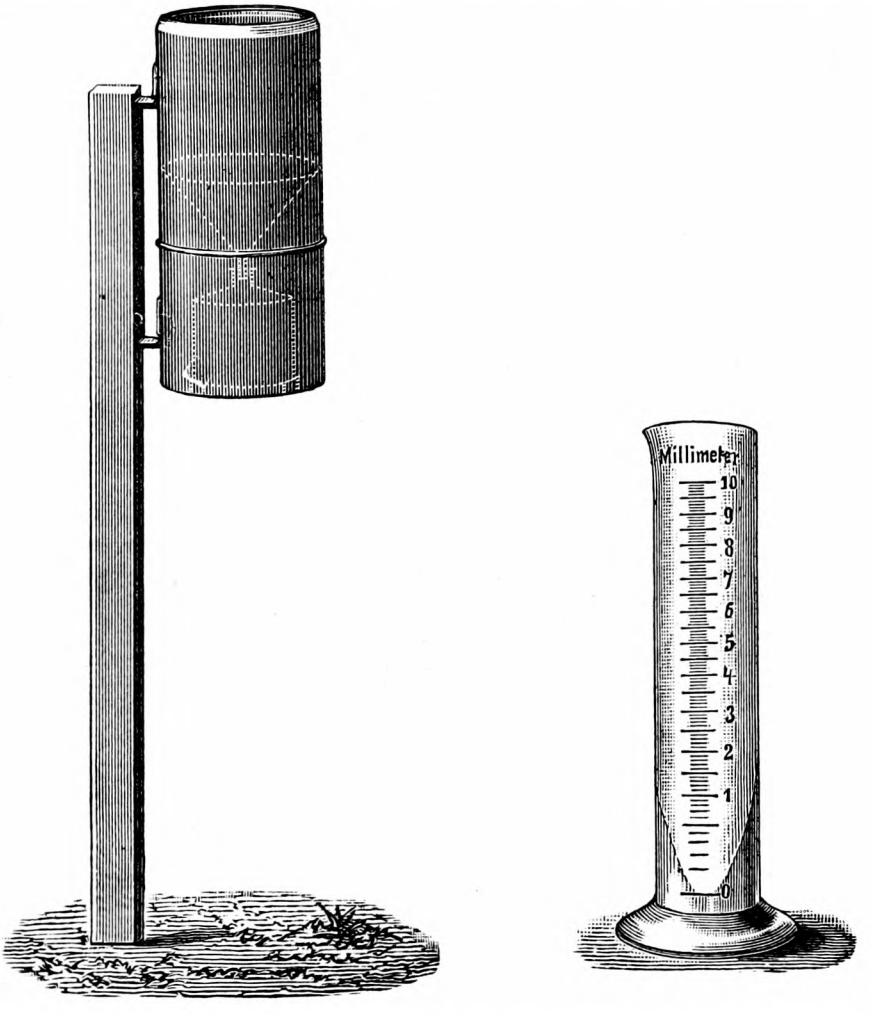
Lat., 51° 32′ 40″ N. ; Lon., 0° 8′ 0″ W. ; Tank, 6′ 0″ square, 2′ 0″ deep ; Edge, 3″ above ground ; Ground level, 111½ ft. above Ordnance datum.

	1893.						1894.					
Date.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1	·15	·08	·05	·01	+ ·02	·05	·00	+ ·01	·00	·00	·06	·02
2	·15	·14	·06	·04	+ ·01	·04		·00	·02	·01	·02	·08
3	·16	·05	·06	·06	·01	+ ·06		·02	·01	·04	·06	·01
4	·15	·08	·06	·05	·01	+ ·03		·00	·03	·04	·11	·04
5	·09	·12	·05	·01	·03	·05		·00	·00	·06	·09	·06
6	·15	·04	·07	·03	·01	+ ·01	·09	·00	·04	·04	·09	·03
7	·17	·09	·10	·01	·03	·00		·02	·00	·05	·10	·07
8	·13	·07	·09	·02	·00	+ ·02		·03	+ ·01	·04	·07	·03
9	·11	·14	·05	+ ·02	·02	·01		·00	+ ·01	·06	·04	·04
10	·11	·11	·09	·02	·02	+ ·02		·04	·02	·06	·00	·05
11	·11	·12	·07	·00	·03	·00	+ ·05	·02	·07	·04	·01	·04
12	·05	·05	·08	·04	·00	·00	+ ·03	·05	·01	·08	·09	·04
13	·06	·07	·04	·02	·01	·03	·00	·02	·04	·08	·08	·06
14	·05	·06	·02	·00	+ ·01	·01	+ ·02	·00	·02	·00	·10	·10
15	·03	·10	·05	·01	+ ·01	·00	+ ·02	·01	·02	·05	·06	·07
16	·02	·13	·03	·01	·00	·00	+ ·01	·00	·03	·00	·03	·12
17	·16	·14	·05	·01	·00	·01	·00	·01	·03	·03	·09	·08
18	·13	·17	·03	·04	+ ·06	·00	·00	·04	·00	·02	·14	·04
19	·01	·13	·04	·02	+ ·01	+ ·01	·00	·03	·01	·04	·08	·10
20	·02	·08	·05	·02	·01	·01	+ ·01	·01	·01	·03	·10	·02
21	·09	·13	·04	·01	·01	·00	·00		·04	·06	·07	·10
22	·17	·09	·08	·01	·02	·00	·00	+ ·03	·04	·06	·02	·09
23	·07	·04	·03	·02	·03	+ ·01	·00		·04	·03	·01	·11
24	·13	·12	·04	·03	+ ·02	+ ·01	·00	·00	·05	·00	·12	·14
25	·13	·12	·01	·02	+ ·02	·00	+ ·02	+ ·01	·04	·05	·16	·14
26	·11	·07	·03	·04	·01	·00	·01	+ ·01	·06	·04	·05	·10
27	·12	·06	·02	·03	+ ·01	·00	·01	·03	·04	·05	·09	·14
28	·06	·08	+ ·02	·01	·02	·00	·01	·01	·04	·04	·05	·18
29	·03	·06	·06	·05	·01	·00	·00	...	·04	·05	·02	·18
30	·12	·07	·05	·05	·00	·01	+ .01	...	·04	·02	·04	·20
31	·08	·04	..	·03	...	+ ·04	·01	...	·06	...	·05	...
Total	3·12	2·85	1·48	·70	·11	·01	+ ·04	·28	·83	1·17	2·10	2·48

COMPARISON OF GERMAN & ENGLISH RAIN GAUGES,

AND OF

MR. SIDEBOTTOM'S SNOW GAUGE AT CAMDEN SQ.



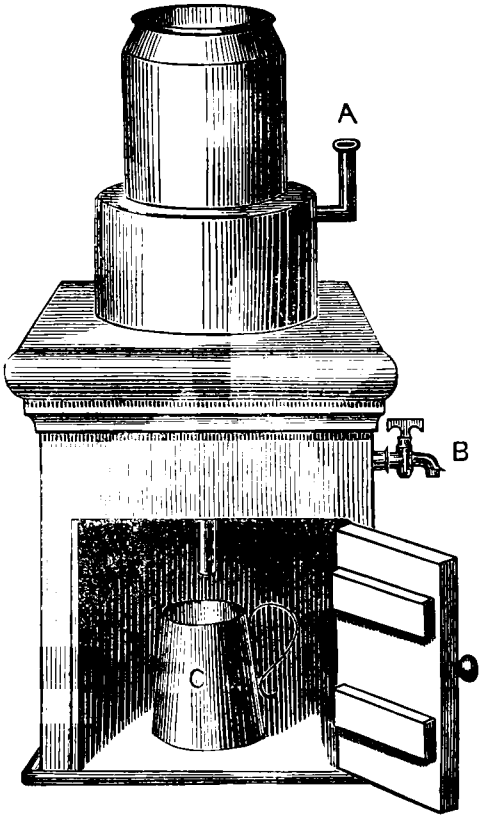
WE gave last year some particulars as to Dr. Hellmann's rain gauges; this year, owing to the kindness of Dr. W. von Bezold, Director of the K. Preuss. Meteor. Institut, we are able to give an engraving, which needs no explanation, except that we have two gauges, one on each side of the post. The tops of Dr. Hellmann's

gauges are, as stated last year, 5 ft. above the ground, and the upper two-thirds lifts off to give access to the can shown by dotted lines. This height of 5 ft., according to various experiments detailed in our earlier volumes, should cause them to collect 4 per cent. less than one at 1 ft. We, therefore, take the readings of the daily gauge and reduce them by 4 per cent.

1893	Ordinary English 8 in. gauge, reduced by 4 per cent.	Dr. Hellmann's Gauges.				Sidebottom Snow Gauge.		
		No. 1, with x	No. 2.	Difference from reduced English.		Ordinary 8 in. gauge reduced by 2 per cent.	Snow & Rain Gauge	
				No. 1, with x	No. 2.		Total.	Diff.
	in.	in.	in.	in.	in.	in.	in.	in.
Jan.	1·38	1·33	1·39	—·05	+·01	1·41	1·31	—·10
Feb.	2·75	2·72	2·87	—·03	+·12	2·81	2·74	—·07
Mar.	·31	·20	·22	—·11	—·09	·31	·21	—·10
Apr.	·23	·17	·16	—·06	—·07	·24	·19	—·05
May	·77	·70	·74	—·07	—·03	·78	·74	—·04
June	·70	·55	·58	—·15	—·12	·72	·67	—·05
July	2·36	2·28	2·36	—·08	·00	2·41	2·28	—·13
Aug.	1·54	1·46	1·44	—·08	—·10	1·58	1·51	—·07
Sep.	1·03	·97	·99	—·06	—·04	1·05	1·00	—·05
Oct.	3·71	3·69	3·76	—·02	+·05	3·80	3·75	—·05
Nov.	2·07	2·07	2·17	·00	+·10	2·12	2·08	—·04
Dec.	2·14	2·08	2·14	—·06	·00	2·19	2·10	—·09
	18·99	18·22	18·82	—·77	—·17	19·42	18·58	—·84

This shows a result very similar to that for 1892; the loss from the permanent use of the snow-protecting X being 0·60 in., instead of 0·51 in. As we stated last year, we are aware that this X was not intended to be used except in the winter half-year; but we wanted to measure its effect, and, curiously enough, it seems to diminish the collected amount more in winter than in summer. The gauges, when containing much rain, have not yet had to stand a hard frost, nor have we had a heavy fall of snow to try their effect with it; but, on the whole, they are evidently very good gauges, and very comfortable to manipulate. It must, however, be remembered that they do not show the amount of rain reaching the ground, but about $\frac{1}{25}$th part less.

MR. SIDEBOTTOM'S SNOW GAUGE.



We have, for convenience of comparison, added to the table three columns comparing the result of the daily readings of Mr. Sidebottom's snow-rain gauge, of which we reproduce the engraving from *Brit. Rain.*, 1888, p. 28, with the theoretical amount for its height, 3 ft. It will be seen that its indication is almost precisely half way between Dr. Hellmann's No. 1 and No. 2—in fact, a glance down the column shows that an addition of 0·07 in. per month to compensate for the large area to be wetted would make the agreement between the reading of this gauge and the computed value for 3 ft. quite remarkable. We should have for the successive months, —·03, ·00, —·03, +·02, +·03, +·02, —·06, ·00, +·02, +·02, +·03, —·02, or on the year absolute agreement, in no month a difference exceeding ·06 in., and a mean difference of 0·02 in. As compared with a gauge at 1 ft., it does not, of course, agree so well, because the correction for altitude is proportional to the total amount; but, roughly, our Sidebottom gauge with its rim 3 ft. above ground collects 0·10 in. per month less than the gauge at 1 ft.; with a steep cone at its base it would agree still better; and, in time of snow, it relieves the observer from all anxiety.

RAINFALL AT THE ROYAL OBSERVATORY, GREENWICH.

Lat., 51° 28′ 38″ N. Long., 0° 0′ 0″

Communicated by W. H. M. CHRISTIE, ESQ., M.A., F.R.S.,
Astronomer Royal.

1893	No. of days on which rain fell.	MONTHLY AMOUNT OF RAIN COLLECTED IN EACH GAUGE.							
		Osler's Anemometer		On roof of Octagon Room.	On roof of Magnetic House.	On roof of Photographic Thermometer Shed.	Gauges partly sunk in the ground.		
		Self-registering Gauge.	Second Gauge.						
Height above Ground.	...	50ft. 8in.	50ft. 8in.	38ft. 4in.	21ft. 6in.	10ft. 0in.	5in.	5in.	5in.
Height above Mean Sea Level.	...	205ft.	205ft.	193ft.	176ft.	165ft.	155ft.	155ft.	155ft.
		in.	in.	in.	in.	in.	in.	in.	in.
January	15	0·776	0·841	1·080	1·287	1·439	1·446	1·459	1·528
February	22	1·440	1·395	2·009	2·429	2·729	2·718	2·760	2·783
March	7	0·201	0·173	0·211	0·438	0·467	0·433	0·426	0·447
April	3	0·073	0·084	0·099	0·131	0·136	0·119	0·119	0·123
May	9	0·332	0·377	0·456	0·532	0·543	0·530	0·520	0·536
June	8	0·602	0·523	0·693	0·792	0·822	0·822	0·810	0·822
July	18	2·494	2·402	2·841	3·187	3·300	3·330	3·354	3·363
August	11	0·876	0·822	1·081	1·220	1·223	1·246	1·229	1·256
September	14	0·762	0·658	0·967	1·221	1·287	1·289	1·281	1·295
October	15	3·484	3·341	3·770	4·055	4·139	4·164	4·159	4·217
November	16	1·018	0·966	1·390	1·616	1·796	1·828	1·823	1·858
December	16	1·234	1·032	1·508	1·838	2·125	2·193	2·199	2·206
Sums	154	13·292	12·614	16·105	18·746	20·006	20·118	20·139	20·434
No. of Gauge	...	1	2	3	4	5	6	7	8

The monthly record terminates at midnight on the last day of the month.
A rainy day is considered to be one on which 0·005 in., or more, is collected in gauge No. 6.
Of the ground gauges 6, 7, and 8, No. 6 is taken as standard, No. 7 is the old monthly gauge, and No. 8 is a gauge added in 1881.

1894, *March* 1.

W. C. NASH,
For the Astronomer Royal.

THE STAFF OF OBSERVERS.

IN subsequent pages we give a list of the changes in our staff from that at which it stood in *British Rainfall*, 1892—in fact, the losses and gains of the year. It will be noticed that in the lists on subsequent pages figures in parenthesis follow the name of each county—those figures indicate the number of perfect records published in the present volume, from the respective counties, and those numbers reach in the aggregate 2,987, the highest number we have ever had. The following table will illustrate the growth of the staff from its formation in 1860 :—

Number of perfect rainfall records published in the volumes of British Rainfall for the undermentioned years.

Years.	England.	Wales.	Scotland.	Ireland.	Gross Total.	Increase over previous year.
1860...	163	5	—	—	168	—
1861...	334	9	109	20	472	—
1871...	1038	88	311	67	1504	—
1881 .	1548	131	313	153	2145	—
1891...	2091	168	359	181	2799	23
1892...	2113	178	367	192	2850	51
1893...	2205	193	389	200	2987	137
Difference from 1892—						
Increase	92	15	22	8	137	
Decrease	—	—	—	—	—	

It will be seen that the above is a list of "perfect" records only, as it would be useless and misleading to include any others, but there are usually from 50 to 150 imperfect or incomplete returns, so that the total number of observers must have exceeded 3,000. Their distribution over the country also is very good, so good that I do not

remember any part of the British Isles where one could not walk in the course of a day from one observer's house to the next; still there is much to be done towards equalizing the general distribution, and there are very few observers who could not help in this matter if they would turn their attention to it—Firstly, by writing down the name and address of everyone whom they know to be keeping an accurate record, and then comparing that list with the present General Tables, and reporting to me anyone whose name they cannot trace there. Secondly, by trying, through the local newspapers, and by watching the same, to hear of fresh observers. Thirdly, by looking in the General Tables for places not mentioned, and trying to find observers for them. Fourthly, by endeavouring to interest members of their families in the work, so that when they are ill, or leave the neighbourhood, or the world, the continuity of the record may not be broken.

MIDDLESEX (66).

ABSENT RECORDS.	INSERTIONS.
Twickenham (Vale House)—*Observer moved.*	Twickenham Sewage Works. 2 *gs.*
Ealing (St. Stephens Road)—*Observer moved.*	London (Mile End).
London (New River Office)—*Ret. not received.*	,, (Hamilton Terrace).
Finsbury Park (Endymion Ter.)—*Rec. ceased.*	,, (Portsdown Road, W.)
	,, (Barrow Hill).
	Lea Bridge.
	Stoke Newington Reservoir.
	Harrow.

SURREY (98).

Buckland (Shagbrook)—*Record lost.*	Hascombe Rectory.
Red Hill (Montpellier)—*Observer moved.*	Cranleigh (County School).
Horsley Towers—*Observer dead.*	Dorking (West Street).
Cobham (Leigh Hill House)—*Observer dead.*	,, (Polesden Lacey).
Weybridge (St. George's Lodge)—*Rec. ceased.*	Leatherhead (Newlands).
,, (Church Street)—*Record ceased.*	Caterham (Congregational School).
,, (Egerton Road)—*No reply.*	Warlingham Vicarage.
Walton-on-Thames (Hersham)—*Record ceased*	Ashtead.
Croydon (Addiscombe, Havelock Rd.)—*Obs. mvd.*	Croydon (Duppas House).
,, (Oakfield Road)—*Observer moved.*	,, (Park Hill Rise).
	Chertsey (Flutters Hill).
	,, (Burley Orchard).
	Virginia Water (Portnall Park).
	Dulwich Wood Park.

KENT (111).

Acrise—*No reply.*
Maidstone (Town Malling)—*No reply.*
Canterbury (Harbledown)—*Observer dead.*
Keston (Heathfield) 2 *gs.*—*Observer moved.*
Chislehurst (The Chestnuts)—*Observer moved.*
Beckenham (Foxgrove Road)—*Record ceased.*
Lewisham (Hither Green)—*Gauge stolen.*
Blackheath—*Observer moved.*
Tenterden (Ashbourne Mills).
Woodchurch.
Hythe (Frogholt).
Kearsney Abbey.
Wye (Bilting).
West Malling (Hardres).
Westerham (The Fishponds).
Ash (Petting's House) 2*nd g.*
Herne Bay (Water Works).
St. Peter's.
Bromley (Ivy Dene).
Catford Hill (Avalon).
Honor Oak.
Higham (Oakleigh).
Eltham (Cliefden).
,, (High Street).

WEST SUSSEX (31).

Worthing (Heene)—*Observer dead.*
Chichester (Singleton Rec.)—*Record ceased.*
Chichester (North Pallant).
,, (West Dean).
Midhurst (St. Ann's).
,, (Cowdery Park).
,, (Hollycombe).
Horsham.

EAST SUSSEX (44).

Brighton (Prestonville Road) 2 *gs.*—*Obs. moved.*
Bexhill—*Record ceased.*
Lewes (Conyborough Park)—*No reply.*
Hurstpierpoint (Danny Park)—*G. blown over.*
Waldron (Bryckden) 2 *gs.*—*Observer dead.*
Cuckfield (Borde Hill House)—*Record ceased.*
Forest Row (Ashdown Cottage)—*Rec. ceased.*
East Grinstead (Old Stone Ho.)—*No reply.*
Clayton Rectory.
Wivelsfield (Abbots Leigh).
Nutley Vicarage.

HAMPSHIRE (83).

Botley (Hall Court)—*Observer moved.*
Southampton (Millbrook)—*Observer moved.*
Headley (Arford Ho.) 3 *gs.*—*Observer moved.*
Brading (Oaklands).
Havant (2 *gauges*).
Southampton (Totton).
Botley (The Hollies, Curdridge).
Greatham (King's Holt).
Alton (The Wakes, Selborne).
Winchester (TheHermitage, Wyke).
Liphook (Fowley).
Farnborough.

BERKS (36).

Twyford (Hurst Grove)—*No reply.*	Old Windsor (The Friary). Reading (Ellerslie). ,, (Russell Street).

HERTS (46).

Hoddesdon (Fields Weir)—*Received too late.*	Elstree (Aldenham House). Watford (Frogmore). ,, (Colne Valley W. W.) Hertford (Haileybury College). Tring (Elm House). Hatfield (Brocket Hall). Hitchin (Bancroft).

BUCKS (19).

Great Marlow—*Observer moved.* Aylesbury (Waddesdon)—*No observations.*	Slough (Upton Park). Marlow (Cromwell House). Chalfont St. Giles (The Stone).

OXFORD (34).

Abingdon (Nuneham Park)—*No reply.*	Caversham (Cane End). ,, (Kidmore Grange). Henley-on-Thames (Northfield Ho.) Wheatfield Rectory. Iffley. Waterstock.

NORTHAMPTON (44).

Northampton (Gold Street)—*Observer moved.* Kettering (Montague Street)—*Observer moved*	Northampton (Berrywood). ,, (Kingsthorpe). Kettering (Sewage Works). Apethorpe Lodge.

HUNTS (6)

	Offord D'Arcy.

BEDFORD (22).

Tempsford Hall—*Observer dead.*	Luton (Hart Hill). Ampthill (Higham Bury). Biggleswade (Caldecote) Podington (Hinwick House).

CAMBRIDGE (28).

Guilden Morden [Royston]—*Record ceased.* Stanground Sluice—*Record imperfect.*	Carlton. Cambridge (Pinehurst). Thorney.

ESSEX (48).

Romford (Bulvan)—*Observer dead.*
Great Bentley (The Lodge)—*No reply.*
Dedham (The Rookery)—*Observer moved.*

Barking Outfall.
Southend (Water Works Eastwood).
Thorpe-le-Soken (Landermere).
Colchester (Home Farm).
Halstead.
Saffron Walden.

SUFFOLK (40).

Sudbury (Assington)—*No reply.*
Woodbridge (Bank House)—*Record imperfect.*
Lavenham (Preston Rectory) – *Obsr. moved.*
Bury St Edmunds (Drinkstone Pk.)—*No reply.*
Lowestoft (Carlton Colville)—*Obsr. dead.*
,, (The Clyffe, Corton)—*Record ceased.*

Ipswich (Woolverstone Park).
Alderton Rectory.
Hollesley (Shingle Street).
Cavendish.
Great Glenham.
Ickworth Park.
Little Saxham.
Bury St. Edmunds (Orchard St.)
Fritton.

NORFOLK (65).

North Lopham—*Observer moved.*
Thetford (Croxton)—*Observer moved.*
Loddon (Bergh Apton)—*Observer moved.*
Blofield—*Observer moved.*

Blo' Norton.
Cantley.
Yarmouth (Market Place) *2nd gauge*
Norwich (Heigham).
Swaffham.
Sprowston.
Fakenham (Pensthorpe).
Holkham.
Blakeney.

WILTS (53).

Winterslow—*Record imperfect.*
Amesbury—*Record imperfect.*
Ludgershall (Everleigh)—*Record imperfect.*
Trowbridge (Lovemead)—*No reply.*

Yatesbury.

DORSET (34).

Blandford (Tarrant Keynston)—*Obs. moved.*

Swanage (Gordon Villas).
Winterbourne Steepleton.
Bridport (Portville).
,, (Coneygar).
Bere Regis Vicarage.
Verwood.

DEVON. (98)

Kingsbridge—*No reply.*
Torquay (The Rosery)—*Record ceased.*
,, (Babbacombe)—*Observer moved.*
Dartmoor (Siwards Cross)—*Tampered with.*
Teignmouth (Bitton Street)—*Gauge moved.*
Exeter (Aylesbeare)— *Observer moved.*
,, (Brampford Speke)—*Tampered with.*
Honiton (Feniton Court)—*Record ceased.*
Tiverton (St. Peter Street)—*Record imperfect.*
Torrington (Bear Ho. Langtree)—*Too late.*

Salcombe (Shadycombe).
South Huish.
Plymouth (The Hoe).
,, (Freedom Field).
Paignton (The College).
,, (Sarsden Lodge).
Sheepstor Vicarage.
,, (Red Stone).
Princetown.
,, (North Hessary Tor).
Bovey Tracey (Little Bradley).
Exeter (Lyndhurst Road).
Tiverton (Cove House).
Woolacombe.
Ilfracombe Hotel. *New gauge.*

CORNWALL (30).

St. Just—*Observer moved.*
Falmouth (Kennal Vale)—*No reply.*
Liskeard (Herodsfoot Vic.)—*Observer moved.*
Bodmin (Fore Street)—*Observer dead.*

Penzance (Trevean).
Truro (St. Michael Penkevil).
Newquay.

SOMERSET (55).

Yeovil (Summerlands)—*No reply.*
Somerton (Butleigh Court)—*Gauge moved.*
Weston-super-Mare (Bryn-y-mor)—*Obsr. dead.*
Bath (Bathwick)—*Record imperfect.*

Wellington (The Avenue).
Taunton
,, (Norton Fitzwarren).
Cranmore (Cranmore Hall).
Axbridge (Loxton).
Radstock (Paulton House).
Wrington (West Hay).
Bath (Royal Institution).
Batheaston.
Clevedon (Pembroke Villa).

GLOUCESTER (79).

Bristol (Over Court Park)—*Rec. imperfect.*
,, (,, Garden)—*Rec. imperfect.*
Berkeley (Salter Street)—*Record ceased.*

Clifton (Cecil Road).
Bristol (Montpelier).
,, (The Grove, Fishponds).
,, (Cote House).
Filton.
Chipping Sodbury (Ridge House).
Alderley.
Great Barrington.
Gloucester (Hempsted).
Cheltenham (Selsley Lawn).

HEREFORD (31).

Hereford (Hagley Park)—*Observer dead.*	Wyaston Leys [Monmouth]. Upton Bishop (The Baches). Fownhope (Morney Cross). Ledbury (Underdown). M. Hereford (Breinton Court). Kington (Evancoyd).

SHROPSHIRE (30).

	Shifnal (Haughton Hall).

STAFFORD (34).

Lichfield Museum—*Record imperfect.*	Stoke (Hartshill). Leek (Rudyard).

WORCESTER (35).

Stourport (Hartlebury)—*No reply.*	Great Malvern (Leigh Sinton). Worcester (Fort Royal). Moseley (Woodstock Road).

WARWICK (30).

Southam (Stockton)—*Record ceased.* Leamington (St. John's Vic.)—*Observer moved.*	Southam. Rugby (Dunchurch Hall). Birmingham (Edgbaston). Nuneaton (Caldecot Hall).

LEICESTER (23).

Market Harborough (Fairlawn)—*Rec. ceased.* Melton Mowbray (Thorpe Arnold)—*Obsr. dead*	Ashby-de-la-Zouch (Cole Orton). Loughborough (Nan Pantan).

RUTLAND (8).

	Ketton Hall [Stamford] *Snowdon.* ,, (The Holmes).

LINCOLN (60).

Stamford (Castle Cottage)—*Gauge moved.* Bourne (Wytham-on-the-Hill)—*No reply.* Swineshead—*Return not received.* Navenby—*Observer dead.* Skegness—*No observations.* Lincoln (St. Catherine's)—*Gauge moved.* Brattleby—*Observer moved.* Louth (Water Works)—*No reply.* Market Rasen (Tealby)—*Return not received.*	

NOTTS (35).

Farnsfield—*Record imperfect.*
Mansfield (Forest Villa)—*Record ceased.*
Worksop (Osberton Gardens)—*Record lost.*
,, (Gateford)—*No observations.*
Bramcote.
Nottingham (The Park).
Radcliffe-on-Trent (Chestnut Ho.)

DERBY (42).

Willington—*Record ceased.*
Hathersage (Bamford)—*Observer dead.*
Alvaston.
Spondon.
Hazelwood (Holmside) *2nd g.*
Darley Dale (Whitworth Inst.)
Grassmoor Colliery.

CHESHIRE (67).

Chester (Hoole Lodge)—*Gauge moved.*
Hill Cliffe [Warrington]—*Observer dead.*
Eccleston Rectory.
Chester (Parkgate Road).
Siddington (Thornycroft Hall).
Northwich (Highfield). *Snowdon.*
Hooton Grange.
Thurstaston (Dawpool).
West Kirby (Caldy Manor).
Broadbottom (Harewood Lodge).

LANCASHIRE (162).

Manchester (Cheetham Hill)—*Obs. moved.*
Milnrow (Piethorne, Kitcliff)—*Unreliable.*
Blackburn (Pleasington)—*No observations.*
Blackpool—*Gauge moved.*
Grange (Kents Bank House)—*Record ceased.*
Hawkshead (Grizedale Hall)—*Observer dead.*
Stalybridge (West Hill).
Dalton (Ashurst Hall).
Bolton (Heaton) *new g.*
,, (Belmont) *new g.*
Southport (Hesketh Park) *M. O. g.*
Entwistle (*new g.*)
Haslingden.
Blackburn (Samlesbury).
Burnley (Gawthorpe Hall)
Garstang (Forton).
Heysham House.
Lancaster (Greg Observatory).
,, (Rose Bank).
Colton (*2nd g.*)
Finsthwaite Vicarage.

YORKSHIRE—WEST RIDING (225).

Tickhill—*Record lost.*
Doncaster (Owston)—*Observer moved.* [*with*
,, (Burghwallis Rec.) M.—*G. tampered*
Ackworth (Flounders Institute) *Ret. not recvd.*
Rastrick—*Observer dead.*
Leeds (Lawns Wood, Adel)—*Rec. imperfect.*
Standedge (Redbrook Res.) *old g.*
Bradford (Thornton Moor).
Boston Spa.
York (Burton Croft).
Sedbergh (Gate).

YORKSHIRE—EAST RIDING (28).

Hull (Nelholme Ferriby)—*Observer dead.*
Driffield, Water works—*No reply.*
Beverley (Register House).
Middleton-on-the-Wolds.
Driffield (York Road) M.
Hunmanby (Holly Bank).

YORKSHIRE—NORTH RIDING (39).

Hawes (Beckside, Lunds)—*Gauge moved.*
Catterick (Tunstall)—*No observations.*
Guisborough (Redcar Road).—*Observer dead.*
Masham (Aldburgh Hall).
Oswaldkirk (The Hermitage).
Pickering.
Scarborough (South Cliff).

DURHAM (40).

Egglescliffe [Yarm]—*Record ceased.*
Stockton (Howden House)—*Observer moved.*
Tow Law.—*Observer dead.*
Stockton (Rimswell).
Seaham Hall.
Sunderland.
Ryton-on-Tyne.

NORTHUMBERLAND (45).

Newcastle (Philos. Society)—*Gauge moved.*
North Shields (Wallsend)—*No observations.*
,, (Monkseaton)—*No reply.*
Rothbury (Brinckburn)—*Record unreliable.*
Corbridge (Howden Dene).
North Tyne Valley.
Ancroft (Cheswick).

CUMBERLAND (68).

Threlkeld Rectory—*Observer moved.*
Penrith (Nunwick Hall)—*Observer moved.*
Kirksanton (The Croft).
Keswick (Deer Close).
Skelton Rectory.
Carlisle (Rose Castle).
,, (Burgh-by-Sands).

WESTMORELAND (33).

Kendal (St. George's Vic.)—*Record ceased.*
,, (Ellergreen)—*Record burnt.*
Haweswater (Mardale Green)—*Record ceased.*

WALES.

MONMOUTH (24).

Tredegar (Bedwellty House)—*Record ceased.*
Portskewett (Caldicot Hall).
Newport (Ynys-y-bro).

GLAMORGAN (35).

Cardiff (Sanatorium).
Treherbert (Tyn-y-waun) 2 *gs.*
Dowlais (Gwernllwyn).

CARMARTHEN (6).

PEMBROKE (8).

Haverfordwest (Picton Castle)—*No reply.*
St. Bride's Bay (Hilton).

CARDIGAN (6).

BRECKNOCK (20).

Nanthir Reservoir [Aberdare] M.

RADNOR (14).

Llandrindod.

MONTGOMERY (10).

Meifod (Tanyfron)—*No reply.*
Welshpool (Llwynderw).
Garthbibio (Bwlch Tomlyd).

FLINT (9).

Hawarden.
St. Asaph (Bodelwyddan Castle).
Prestatyn (Edlestone House).

DENBIGH (19).

Wrexham (Coed Efa)—*Gauge moved.*
Gresford.

MERIONETH (6).

Arenig (Bodrennig).

CARNARVON (15).

Llandwrog (Bodfean).
Pen-y-gwryd Hotel.

ANGLESEA (4).

| Penmynydd Vicarage.

ISLE OF MAN (10).

ISLES OF SCILLY (2).

JERSEY (3).

| St. Helier (Maison St. Louis).

GUERNSEY (2).

Les Ruettes Brayes(LeHechet) 2 *gs.*—*Obs.mvd* | St. Peter Port (Beaulieu).

SCOTLAND.

WIGTON (6).

KIRCUDBRIGHT (17).

DUMFRIES (14).

| Lockerbie (Tundergarth Manse).
| Lochmaben (Esthwaite).
| Thornhill (Capenoch House).
| Durrisdeer (Drumlanrig Gardens).

ROXBURGH (12).

| Lilliesleaf (Riddell).

SELKIRK (3).

| Galashiels (Stantling Craigs).

PEEBLES (5).

| Stobo Castle
| Innerleithen (Leithen Lodge).

BERWICK (6).

Duns (Clouds)—*Observer dead.* | Eyemouth.

HADDINGTON (5).

| Prestonkirk (Smeaton).

EDINBURGH (25).

Moorfoot Hills (Bowbate)—*G. tampered with.*
Pentland Hills (Swanston)—*Record ceased.*
Edinburgh(Napier Road)—*Return not received.*

| Pentland Hills (Crosswood).

LINLITHGOW (4).

LANARK (12).

	Lanark (Fence)
	Hamilton (Ardenclutha).

AYR (19).

Ailsa Craig—*Record unreliable.*	Barr Manse.
	Loch Finlas.
	Maybole (Sauchrie).
	Old Cumnock (Townhead) M.

RENFREW (26).

DUMBARTON (6).

Helensburgh (Waterworks)—*Rec. imp.*	Helensburgh (Dalglenan).

STIRLING (14).

	Little Denny.
	Earlsburn Reservoir.
	St. Ninians (Fallin).
	Stirling (Touch Reservoir).
	Kippen (Garden House).

BUTE (4).

Kingarth (Plan)—*Observer ill.*	Arran (Pladda).

ARGYLL, MAINLAND (21).

Holy Loch (Rosmor) *Observer dead.*	Tayvallick (Taynish).
Oban Craigvarren)—*Observer moved.*	

ARGYLL, INSULAR (18).

Jura (Bay of Small Isles)—*Record unreliable.*	

CLACKMANNAN (4).

	Menstrie (The Myretoun).

KINROSS (3).

Cleish Castle—*Return not received.*	Kinross (Gelly Bank).
Kinross (Turfhills)—*Observer moved.*	

FIFE (10).

Pittenweem (The Priory)—*Record unreliable.*	Beath (Outh).

PERTH (26).

Tulliallan (F. C. Manse)—*Observer dead.*	Dunkeld (Inver Braan).
Blair Athol (The Store)—*No reply.*	Pitlochry (Fasganevin).

FORFAR (21).

Monifieth (Fountain Brae)—*No reply.*
,, (Sea View)—*No reply.*
Montrose (Melville Gardens)—*No reply.*
Arbroath (Waterworks) M.
,, (Dishland Hill).

KINCARDINE (4).

Laurencekirk (Johnstone Lodge).

ABERDEEN (19).

Aberdeen (Duthie Park).

BANFF (4).

ELGIN OR MORAY (6).

NAIRN (2).

WEST ROSS (11).

Strome Ferry (H.R.S.)—*Record ceased.*
Loch Torridon (Bendamph)—*Record imperfect*
Lochbroom (Loch Drome).

EAST ROSS (9).

Dingwall (Uplands).
Evanton (Swordale House).

WEST INVERNESS (17).

Skye (Kyleakin).
,, (Edinbane, Loch Grishinish).
S. Uist (Askernish).

EAST INVERNESS (8).

SUTHERLAND (8).

CAITHNESS (6).

ORKNEY (10).

North Ronaldshay.

SHETLAND (4).

Bressay Lighthouse—*Record unreliable.*
Fair Isle S.
,, ,, N.

IRELAND.

CORK (9).

- Bantry House.
- Douglas (Villa Franca).

KERRY (10).

Mangerton—*Record imperfect.*

- Waterville.
- Cahirciveen.
- Killarney (Gap of Dunloe).
- Tralee (Meadow Lands).

WATERFORD (6).

TIPPERARY (9).

- Clonmel (Bruce Villa).
- Caher (Duneske).
- Ballina [Killaloe].

LIMERICK (4).

Jane Ville [Tipperary]—*No reply.*

CLARE (6).

WEXFORD (8).

- Enniscorthy (Monks Grange).

KILKENNY (4).

Rosbercon Castle[New Ross]—*Observer moved.*
Kilkenny (Inch House) – *Observer moved.*

WICKLOW (4).

- Ashford (Ballycurry).

CARLOW (2).

Borris—*Record imperfect.*

QUEEN'S COUNTY (1).

KING'S COUNTY (4).

- Meelick Lock.
- Banagher.

KILDARE (1).

DUBLIN (10).

Glen-na-Smoel (Lodge)—*Record imperfect.*

- Balbriggan (Ardgillan).

MEATH (4)

Old Bridge [Drogheda]—*No reply.*

WESTMEATH (3).

LOUTH (4).

Ravensdale (Annaverna)—*No reply.*

LONGFORD (2).

Cloondra [Tarmonbarry].

GALWAY (10).

Shannon Grove [Banagher]—*Gauge moved.*

ROSCOMMON (3).

Athlone.
Rooskey.

MAYO (4).

Ballinrobe (Kilrush).

SLIGO (5).

Mullaghmore—*Record imperfect.*

Ballymote (New Park).

LEITRIM (3).

Jamestown (Albert Lock).
Drumshanbo (Lough Allen).

CAVAN (14).

Bawnboy House—*Record imperfect.*

FERMANAGH (3).

MONAGHAN (5).

ARMAGH (6).

Loughgall (Manor House).

DOWN (11).

Sydenham (Alma House)—*Observer dead.*

ANTRIM (19).

Carrickfergus (Copeland No. 3)—*Rec. ceased.*
Ballynure (Ballyboley)—*Return unreliable.*
Broughshane (Quolie)—*Not received.*

Lisburn (Prospect Hill).

LONDONDERRY (7).

TYRONE (8).

Coalisland Canal (No 7 Lock)—*Rec. unreliable.*

DONEGAL (13).

Lough Eske (The Castle).
Letterkenny (Glen Alla).
Rathmullen.

OBITUARY.

WE have lost an exceptionally large number of observers during the past year; in fact 65, exactly as many as in the worst year—1891.

Three of the observers who contributed to *English Rainfall,* 1860, have passed away—Mr. Dyson, Col. Haywood, and Mr. Ingram.

The Rev. Leonard Blomfield, who (under his former name of the Rev. Leonard Jenyns) began observations in 1832, has passed away at Bath at the age of 94. Had his residence at Bath afforded facilities for observation, his record would have been a very long one, for he retained all his faculties to quite a recent period; failing that, he adopted a course which may be made to prove even more fruitful, for he presented all his instruments (and the Jenyns library) to the Royal Literary and Philosophical Society of Bath, and, as a society need never die, the observations may go on indefinitely, if the Society be properly managed.

There are fifteen deceased observers whose records cover more than a quarter of a century, and the following four had been observing for more than a third of a century, viz.:—Col. Haywood for 36, Mr. Arthur Marshall for 38, Mr. Ingram for 39, and Mr. Dyson for 42 years.

It is sad to look down the list, but, as far as we know, there are but two who were not over 50 years of age; in fact, we have in the following list quite the usual excessive proportion of long-lived observers. We have the age at death of 39; of these, three died at the early ages of 31, 41, and 53; the other 36 were all 60 or upwards; 30 were 70 or upwards, 13 were 80 or upwards, and three reached respectively 90, 93, and 94.

Observers Deceased to July, 1894.

NAMES AND STATIONS.	PERIOD OF OBSERVATION. DATE.	Perfect Yearly Records.
Ainslie, W. G., Esq., M.P., Grizedale Hall, Hawkshead, Lancs	1886–1892 T	7
Alford, H., Esq., Bryn-y-Mor, Weston-super-Mare	C 1891 imp –93 imp T	1
Blaaw, T. St. L., Esq., Beechlands, Newick, Sussex	1876–82, 1885–91 T	14
Blomfield, Rev. Leonard, Swaffham Bulbeck, Cambridge	C 1832 imp –49 T	17
Bogue, Mr. G., Gorhambury, St. Albans	C 1853–74 C	22
Boucher, J. G., Esq., Heatherden House, Cross-in-hand, Sussex	1868-90 T	23
Brooke, Miss E., Northgate House, Honley, Yorks	C 1882 imp –90 C	8
Cade, T. C., Esq., Spondon, Derby	1893 T	1
Clonbrock, Rt. Hon. Lord, Clonbrock, Ahascragh, Galway	C 1874–92 C	19
Coode, E., Esq., Polapit Tamar, Launceston	1870 imp –74 imp –92 C	21
Culley, A. J., Esq., Cossey Mills, Norfolk	C 1886 imp –93 T	7
Dawson, A., Esq., Harryville, Ballymena, Antrim	C 1877–92 C	16
Denton, J. Bailey, Esq., C.E., Woodfield, Stevenage	1859, 1863–67, 1869–70 T	9
*Dyson, T., Esq., Spring Gardens, Gainsborough	C 1851–67 T	42
*Dyson, T., Esq., Alexandra Terrace, Beverley	C 1868 imp –93 T	42
Ebury, Rt. Hon. Lord, Moor Park, Rickmansworth	1882–92 C	11
Edwards, Geo., Esq., C.E., Carlton Colville, Lowestoft	C 1860–92	33
Forester, Rt. Hon. and Rev. Lord, Willey Park, Shropshire	1883–92 C	10
Gibson, Mr., Lupton, Brixham, Devon	C 1865–77, C 1881–92 T	25
Graham, Dr. J., Bryckden, Waldron, Sussex	1888–92 T	5
Gripper, F. P., Esq., Whatlington, Battle, Sussex	C 1886–92 C	7
Halliday, Mr. J., Scone Palace, Perth, N.B.	1852 imp –79 imp T	26
Hambly, Mr. A., Fore Street, Bodmin	C 1864–92 T	29
Harris, W. J., Esq., Bedford Row, Worthing	C 1866 imp –86 T	26
Harris, W. J., Esq., Heene, ,,	C 1887–92	26
Hays, Rev. Prebendary, Navenby, Grantham	1869–92	24
*Haywood, Col., C.E., Guildhall, London, E.C.	C 1857–92 C	36
Hearder, Dr. G. J., Asylum, Carmarthen	C 1869 –92 T	24
Hill, J., Esq., C.E., Ennis, Clare	1875–93 C	19
Hood, Dr., Tow Law, Durham	1889–92 T	4
Hutchinson, A., Esq., Hagley Park, Hereford	C 1866 imp –92	26
*Ingram, W., Esq., Belvoir Castle, Grantham	C 1855 –93 C	39
Jackson, Mr. W., West Melton, Rotherham	C 1881–93	13
Keate, Rev. J. C., Hartley House, Basingstoke	1871–93 T	23
Kebbell, Dr., Upper Brunswick Place, Brighton	C 1859–61 imp –67 imp T	7
King, W. R., Esq., Nelholme, Ferriby, E. Yorks	1877–92 T	16
Latter, Rev. A. S., North Mimms, Hatfield	1873 imp –75 imp 76 T	2
Laurie, Rev. J. W., F. C. Manse, Tulliallan, N.B.	1889, 90 imp –92	3
Lees, Rev. T., Wreay Vicarage, Carlisle	1876–92 C	17
Lovel, J., Esq., York Road, Driffield	1888–92 C	5
Lovelace, Rt. Hon. Earl of, Horsley Towers, Surrey	1880, 82, 84, 86–92	16
Lovelace, Rt. Hon. Earl of, Bendamph, Loch Torridon, N.B.	1886 imp –92 C	16

Observers Deceased to July, 1894—(continued).

NAMES AND STATIONS.	PERIOD OF OBSERVATION. DATE.	Perfect Yearly Records.
Mackeson, H. B., Esq., Hythe, Kent	C 1865–93	29
Marshall, A., Esq., Hallsteads, Cumberland	C 1853 imp –86 imp –92 C	38
Marson, J. Esq., Hill Cliffe, Warrington	1882 imp –92	10
May, Rev. H. T., South Petherwin, Launceston, Cornwall	1881–90 T	10
Mitchell, Col., Luscar House, Dunfermline, N.B.	C 1891 imp –92 C	1
Moffat, J., Esq., J.P., Ballyhyland, Enniscorthy, Wexford	C 1867–92 C	26
Moore, W. C., Esq., Bamford, Hathersage, Derby	1870 imp –75, 78 imp –84 T C 85 imp –86 89–93 imp T	15
Mott, Rev. H. S., Much Hadham, Ware	C 1866–81 C	16
Pell, Mrs., Hazelbeach, Hall, Northampton	1884 imp –90 imp – 92 C	7
Pengelly, W., Esq., F.R.S., Lamorna, Torquay	C 1864–88 T	25
Reade, R., Esq., Alma House, Sydenham, Belfast	C 1875–92 T	18
Richardson, H., Esq. — Cherry Hill, York	C 1866–80, 82–92 C	26
Richardson, H., Esq. — Cherry Bank, Ilkley, Yorks	C 1880 imp –92 C	12
Robie, Mr. D., Western Street, Bedford	C 1869–93 T	25
Rust, Mr. J., Eridge Castle, Tunbridge Wells	1862–64 T 71–3, 77–92 C	22
Shadwell, Rev. A., Little Ilford, Essex	1881–88 T	8
Smith, H. A., Esq., The Mount, Chepstow	1879–87, 89–92 C	13
Smith, W. R. W., Esq., Rosmor, Holy Loch, Argyll	C 1883 imp –92 T	9
Soames, Rev. C., Mildenhall, Wilts	C 1866–80 imp –93 C	27
Stuart, Col., Tempsford Hall, Sandy	C 1873–92	20
Swift, Rev. J. S., Thorpe Arnold, Melton Mowbray	C 1875 imp –93 imp T	17
Twining, Dr. A. H., The Knoll, Salcombe, Devon	C 1890–93	4
Varty, Miss, Manor Road, Holloway, N.	1879–87 T	9
Venables, Rev. E. B. W., Red Hills, Belturbet	C 1864–92	29
Watson, C., Esq., Clouds, Dunse, N.B.	1882–90, 92	10
Wilkinson, Rev. Dr., Swalcliffe, Banbury	C 1888–90 imp	2
Woodd, C. H. L., Esq., Roslyn, Hampstead	C 1863–70 imp –73 imp –92 C	46
Woodd, C. H. L., Esq., Oughtershaw, Yorks	1858, 1863–76, 77–78 T C 1880–82 T C 84–92 C	46

NOTE.—C indicates commencement of record and also its continuation, T its termination.

RAINFALL AND METEOROLOGY

OF

1893.

SYMBOLS EMPLOYED.

H - - -	Hail.
L -	Lightning.
R - - -	Rain, or Rainfall.
S - - - -	Snow.
T - -	Thunder.
TS - -	Thunderstorm.
TSS - - -	Thunderstorms.
H.R.S. - -	Highland Railway Station.

ON THE METEOROLOGY OF 1893.

WITH NOTES OF SOME OF THE PRINCIPAL PHENOMENA.

[These Notes should be read in conjunction with those on Heavy Rains in 1893].

JANUARY.

1st.—*Sevenoaks, Kemsing* (II.) Two inches of S.—*Birchington, Thor* (II). Heavy S.—*Rendlesham Hall* (IV.) Heavy S.

1st—4th.—*Chelford, Astle Hall* (VIII.) Sharp frost, with 3 inches of S on 3rd.

1st—6th.—*Hoar Cross* (VI.) S daily.

1st—7th.—*Cheltenham, Naunton Park Villas* (VI). Severe frost; a water main 18 in. below the surface was frozen solid, and the workmen state that the ground was frozen to a depth of 22 in.—*Melrose, Abbey Gate* (XII). S daily, except 6th.

1st—9th.—*Longton, The Meir* (VI). S daily.

2nd.—*Cranbrook, Hartley* (II). Max. temp. 25°; with the exception of 22° on December 30th, 1890, the lowest recorded in 27 years.—*Drumnadrochit* (XVIII). S 3¼ inches deep.

2nd—8th.—*Dunfermline, Keavil* (XVI). S daily.—*Dalnaspidal, H.R.S.* (XVI.) S daily, excepting 5th.—*Logie Coldstone Manse* (XVII.) S daily, except on 5th.

3rd—6th.—*Dundee Harbour* (XVI). S daily.

3rd—7th.—*Stronvar* (XVI). S daily; 2 inches on 6th and 2½ inches on 7th.

3rd—9th.—*Rhayader, Nantgwillt* (XI). S daily, except the 4th.

3rd—14th.—*Abergwessin Vic.* (XI). S daily, excepting the 4th and 11th.

5th.—*Southport, Birkdale* (VIII). Ice in Hesketh Park attained its max. thickness—viz., 7¼ inches.

5th and 6th.—*St. Bride's Bay* (XI). About 6 inches of S in the two days.—*Colmonell* (XIV). In the two days 1½ inches of S fell.

5th—7th.—*Tenbury, Orleton* (VI). S began about 6 p.m. on 5th, and continued with little interruption till 11 a.m. on 7th, when it lay about 8 inches deep.—*Llandovery* (XI). S daily.—*Mullingar, Belvedere* (XXI). S.

5th—8th.—*Cheltenham, Battledown* (VI.) S daily.—*Neston, Hinderton* (VIII). S daily.—*Llanvihangel Court* (XI). S.

5th—9th.—*Llanthony Lock* (VI). S daily.—*Ripon, Mickley* (IX). S daily.

6th.—*Bloxham Grove* (III.) S all day, yielding ·46 in.—*Knutsford* (VIII). About 4 inches of S.—*Wakefield, Stanley Grange* (IX.) The 16 days of continuous frost terminated.

6th and 7th.—*Clifton, Pembroke Road* (VI). About 2 inches of S.

6th—8th.—*Corwen, Rhug* (XI). S.—*Miltown Malbay* (XX). S.

7th.—*Berkhampstead, Rosebank* (III). S 3½ inches deep.—*Ketton Hall* (VII.) S 5¼ inches deep.—*Douglas, Victoria Road* (XI). N.E. gale and S.—*Dunmanway, Coolkelure* (XX). S.E. gale at night with heavy R and sleet.—*Clonmel, Bruce Villa* (XX). S yielding 1·12 in.—*Broadford, Hurdlestown* (XX). S all day.

7th—8th.—*Melmerby* (X). Helm wind.

7th—9th.—*Woodlawn Gardens* (XXII). S.

8th—*Clonmel, Bruce Villa* (XX). S yielding ·28 in.

9th and 10th.—*Walthamstow, Forest Road* (IV). Notwithstanding the thaw, the R froze on the lawn, covering it with thick ice, and the grass temp. remained steady at 32°.

11th—15th.—*Cheltenham, Battledown* (VI). S daily.

12th—16th.—*St. Albans, The Grange* (III.) S daily.

13th—17th.—*Dalnaspidal, H.R.S.* (XVI). S daily.

13th—19th.—*Forres* (XVII). S daily.

14th—*Blandford, Whatcombe* (V). Severe S storm, yielding ·44 in.—*Clifton, Pembroke Road* (VI). 2 inches of S.—*Ross, The Graig* (VI). Three inches of S.—*Stronvar* (XVI). Two inches of S.—*Watten, H.R.S.* (XIX). Between 9 and 10 a.m. 3 inches of S fell.

14th—16th.—*Glastonbury, High Street* (V). S yielding ·67 in.

14th—17th.—*Sandhurst Rectory* (II). S daily.—*Tenterden* (II). S daily.

15th and 16.—*Henley, Northfield House* (III.) S yielding ·29 in.

16th.—*Colchester, Lexden* (IV). S yielding ·34 in.—*Chelford, Astle Hall* (VIII). S at night and thick fog all day.

17th.—*Sevenoaks, Kemsing* (II). Two inches of S.—*Manor Park* (IV). S from noon to 4 p.m., yielding ·14 in.—*Keswick, The Beeches* (X). Heavy S from 8 to 9 a.m.

18th.—*Berkhampstead, Rosebank* (III). A silver thaw.

20th.—*Scourie* (XIX). Gale with H and S showers and L.

28th.—*Bincombe House* (V). Hard gales from S.E. to S.W.—

Clifton, Pembroke Road (VI). TS in night.—*Monmouth, The Hendre* (XI). Rough wind and heavy R, the river Trothy overflowing its banks.—*Stronvar* (XVI). Three inches of S.

30th.—*Bincombe House* (V). Hard gale from S.E. to S.W.—*Cork, Clarence Place* (XX). L.

31st.—*Meltham, Harewood Lodge* (IX). Beautiful lunar corona at 9.15 p.m., prismatic colours very fine.—*Monmouth, The Hendre* (XI). Heavy R, the Trothy overflowed its banks.

FEBRUARY.

1st.—*Melrose, Abbey Gate* (XII). T and L at 8.30 a.m.

7th.—*New Galloway, Glenlee* (XII). T and L at 10.30 p.m.—*Colmonell* (XIV). T and L.—*Cork, Clarence Place* (XX). A vivid flash of L with loud T.—*Miltown Malbay* (XX). Heavy W. to N.W. gale.—*Galway, Queen's College* (XXII). Much L, with heavy squalls and showers after 6 p.m.—*Belfast, Springfield* (XXIII). T and L.

7th—10th.—*Glenaladale* (XVIII). Very stormy, with H, T and L.

8th.—*Helensburgh* (XV). Severe TS.

9th.—*Cirencester, Further Barton* (VI). H, and violent wind at 10.30 p.m.—*Rhiwbryfdir* (XI). Hurricane from N.W. and heavy R.—*Ben Nevis Observatory* (XVIII). L at 7.45 and 9.5 p.m., St. Elmo's fire at 8 p.m.—*Belfast, Springfield* (XXIII). T and L.

9th and 10th.—*Emsworth, Redlands* (II). W. to N.W. gale.

10th.—*Berkhampstead, Rosebank* (III). Moderate gale from W.S.W., the highest wind for a twelvemonth.—*Diss* (IV). Heavy S.W. gale.—*Chelford, Astle Hall* (VIII). Gale from N.W. with heavy R.

10th and 11th.—*Melrose, Abbey Gate* (XII). Gale. with R and H.

11th.—*Bishops Cannings* (V). T at 6 p.m. S at night.—*Ross, The Graig* (VI). The River Wye flooded (9 feet) from the effects of a storm in Wales.

11th and 12th.—*Cheadle, The Heath House* (VI). S.—*Watten, H.R.S.* (XIX). S.—*Edgeworthstown, Currygrane* (XXI). S.—*Lough Sheelin, Arley* (XXIII). S.

12th.—*Ashburton, Druid House* (V). S on the hills. Heavy H showers.—*Nottingham, Beeston Fields* (VII). Ground white with H stones.—*Rhiwbryfdir* (XI). S on the hill tops.

13th.—*Ross, the Graig* (VI). S on the hills.—*Lancaster, Rose Bank* (VIII). R without ceasing for 24 hours, 1·83 in.—*Duddon Valley, Seathwaite Vicarage* (VIII). The heaviest R (3·80 in.) recorded here, but

not the greatest flood, owing to the R being distributed over the 24 hours.—*Duddon Valley, Ulpha Vicarage* (X). R 3·10 in., the heaviest fall in 24 hours in 5 years.—*Glenaladale* (XVIII) S on the hills.

14th.—*New Galloway, Glenlee* (XII). S.—*Ben Nevis Observatory* (XVIII). E.S.E. gale with great S drift.—*Scourie* (XIX). Strong gale, with R and sleet.—*Watten, H.R.S.* (XIX). E.S.E. gale with R, S and sleet.

16th.—*Derby, Findern* (VII). T, H and R at 6 p.m.—*Bolton, The Park* (VIII). T and L at 5 p.m.—*Penty Park* (XI). L, T and heavy R and H.

17th.—*Lyss, Lingwood* (II). Bright sunshine for nine hours.

21st.—*Assenton* (III). TS, 6 to 7 a.m.—*Stowell Rectory* (V). Heavy gale. Sea-level pressure at 2.30 p.m. 28·659 in.

21st.—Heavy rain in the neighbourhood of Colchester, low lands flooded.

21st and 22nd.—*Horncastle, Hemingby* (VII). Gale with S and R, which was practically continuous for 36 hours, causing floods in the basin of the Bain.

21st—23rd—*Broxbourne* (III). S daily.

22nd.—*Ketton Hall* [*Stamford*] (VII). Showers of S, R and sleet.—*Kirkoswald, Melmerby* (X). Violent helm wind and S showers.

22nd and 23rd.—*Hythe* (II) S.—*Lough Sheelin, Arley* (XXIII) S.

22nd—25th.—*Coventry, Coundon* (VI). S daily.

22nd—27th.—*Melrose, Abbey Gate* (XII). S daily, except on 25th; 3 inches deep on 26th.

23rd.—*Kemsing* (II). Ground covered with about 1½ inches of S.

23rd and 24th.—*Cork, Clarence Place* (XX). Heavy fall of S.

24th and 25th.—*East Layton Hall* (IX). Heavy falls of S.—*Miltown Malbay* (XX). S.—*Lawderdale* (XXII). S.

24th—26th.—*Cheadle, The Heath House* (VI). S.—*Bolton, The Park* (VIII). S.—*Broughton-in-Furness* (VIII). S daily.—*Wakefield Prison* (IX). S daily, yielding 1·02 in.—*Corwen, Rhug* (XI). S.—*Forres, H.R.S.* (XVII). S.—*Edgeworthstown, Currygrane* (XXI). S daily.

24th—28th.—*Balquhidder, Stronvar* (XVI). S. daily except the 25th; 3½ inches on 26th, and 2 inches on 27th.—*Drumnadrochit* (XVIII). S daily; 4½ inches deep on 24th, and drifted later.

25th.—*Ashburton, Druid House* (V). Heavy TS in night.—*Ulpha Vicarage* (X). S 5½ inches deep.—*Scourie* (XIX). S 4 inches deep.—*Nenagh, Castle Lough* (XX) S.

25th and 26th.—*Hemingby* (VII). S.—*Lancaster, Rose Bank* (VIII). Violent gale, with sleet, S and R.—*Duddon Valley, Seathwaite Vicarage* (VIII). S, yielding 1·50 in.—*Harrogate* (IX). From midnight on 25th to 1 p.m. on 26th, 7 inches of dense, wet S fell, yielding 1·00 in. Whole gale on the latter date.—*Barnard Castle, Whorlton* (X). Heavy fall of S, yielding 1·10 in.—*Borrowdale, Grange* (X). S.—*Cockermouth, Hassness* (X). Much S and R.—*Rhiwbryfdir* (XI). Eight inches of S.—*Gorebridge, Middleton* (XII). S, yielding ·84 in., 10 inches to 12 inches deep on the latter day, and drifted.—*Galway, Queen's College* (XXII). S; about 3 inches on the first day.

25th—28th.—*Esthwaite Lodge* (X). S daily.

26th.—*Kensington, Edith Road* (I). Strong S.E. to S.W. gale.—*Kemsing* (II). L in night.—*Walthamstow, Forest Road* (IV). Sharp H storm at 4.50 p.m.—*Diss* (IV). Gale and R from E.S.E.—*Knaresborough, Farnham* (IX). Nearly 8 inches of S.—*Keswick, The Beeches* (X). S fell incessantly from early on 26th till the morning of the 27th, depth at 9 a.m. 9 inches. Fall for the two days 1·35 in.—*Kirkoswald, Melmerby* (X). Stormy with S.—*Monmouth, the Hendre* (XI). The rivers Monnow and Trothy overflowed.—*Penty Park* (XI). Heavy R and S at night.—*Glasgow, Queen's Park* (XIV). Great storm of wind and S.—*Coupar Angus* (XVI). S, yielding ·65 in.—*Broadford, Hurdlestown* (XX). S nearly all day.—*Athlone, Twyford* (XXI). Very heavy fall of S, which remained on the ground for a couple of days.

26th and 27th.—*Watten, H.R.S.* (XIX). Gale, with R, S and sleet.

27th.—*Emsworth, Redlands* (II). Violent squalls.

28th.—*Berkhampstead, Rosebank* (III). Nine hours of bright sunshine.—*Gorebridge, Middleton* (XII). S, yielding ·40 in.—*Dollar* (XVI). S, yielding ·40 in.

28th—June 22nd.—*Maldon, Norton Hall* (IV). Only 1·27 in. of R in 114 days.

MARCH.

1st.—*Keswick, The Beeches* (X). Heavy S storm.—*Melrose, Abbey Gate* (XII). S 1½ inches deep.—*Edinburgh, Blacket Place* (XIII). S.

1st—31st.—*Knaresborough, Farnham* (IX). Partial drought, 31 days with ·30 in. of R.

1st—April 30th.—*Brighton, Prestonville Road* (II). Partial drought of 61 days, with ·41 in. of R.—*Pyrton Manor* (III). Sixty-one days with only ·29 in. of R.

1st—May 2nd.—*Tewkesbury, Beckford.* Partial drought for 75 days; R ·33 in. on 9 days.

1st—May 14th.—*Oxford, Elsfield* (III). Partial drought; 75 days with ·29 in. of R.

1st—May 16th.—*Langton Herring* (V). R ·62 in. in the 77 days.

2nd—May 14th.—*Easton Maudit* (III). R ·24 in. in the 74 days.

2nd—May 15th.—*Ospringe, Lorenden* (II). R only ·01 in.

2nd—May 16th.—*Cranbrook* (II). In the 76 days only ·30 in. of R fell.—*Hawkedon Rectory* (IV). Partial drought; 76 days with ·66 in. of R.—*Fakenham, Cranmer Hall* (IV). Partial drought of 76 days, with ·59 in. of R.

2nd—May 17th.—*Compton* [*Petersfield*] (II). Only ·70 in. of R in 77 days.

2nd—May 19th.—*Norwich, Cantley* (IV). 79 days with ·33 in. of R on 8 days.

2nd—May 20th.—*Colchester, Lexden* (IV). Only ·72 in. of R in 80 days.

2nd—June 18th.—*Ospringe, Lorenden* (II). R only ·93 in.

3rd.—*Market Drayton, Old Springs* (VI). Partial drought for 56 days from this date.

3rd.—A flood of 12 ft. 6 in. above summer level in the Ouse at York, due to the melting of snow in the upper watershed; no serious damage reported.

3rd—May 15th.—*Lewes, Bedford Lodge* (II). 72 days with only ·15 in. of R.—*Uppingham, West Deyne* (VI). R only ·52 in. in the 73 days.

4th—April 28th.—*New Radnor, Downton* (XI). Partial drought; 56 days with ·56 in. of R.

4th—May 13th.—*Cheltenham, Naunton Park* (VI). Partial drought.

4th—May 14th.—*Arundel* (II). 71 days with only ·20 in. of R.—*Oxford, Norham Road* (III). R only ·05 in. in the 72 days.

4th—May 20th.—*Braintree, Fennes* (IV). R ·67 in. in the 78 days.

4th—June 21st.—*Walthamstow, Forest Road* (IV). Partial drought; 110 days with ·96 in. of R.

7th.—*Ben Nevis Observatory* (XVIII). S over-hanging the cliff to the extent of 20 feet.

14th.—*Rhiwbryfdir* (XI.) S on hill tops.

15th.—*Helensburgh* (XV). TS. *Coupar Angus* (XVI.) S yielding ·36 in.

15th and 16th.—*East Layton* (IX.) S.—*Ednol* (XI). S.—*Watten, H.R.S.* (XIX). Gales with S.

15th—17th.—*Baldersby* (IX). S daily.—*Abergwessin Vic.* (XI). H and S daily.—*Douglas, Victoria Road* (XI). S and H.—*Inverary, Newtown* (XV.) S.—*Balquhidder, Stronvar* (XVI). S daily; 3½ inches deep on 15th.—*Glenaladale* (XVIII). S.—*Drumnadrochit* (XVIII). S.

15th—18th.—*Invershin* (XIX). S daily.

16th.—*Barnard Castle, Whorlton* (X). S yielding ·18 in.—*Keswick, The Beeches* (X). Heavy S squalls all day, yielding ·52 in.—*Melmerby* (X). Heavy S showers.—*New Galloway, Glenlee* (XII). Snowing nearly all day.—*Melrose, Abbey Gate* (XII). S, H, and L from 3 to 4 a.m.—*Colmonell* (XIV). S 2½ inches deep.—*Broadford, Hurdlestown* (XX). Showers of H, R and S all day.

16th and 17th.—*Burton, Hoar Cross* (VI). S.—*Cheadle, The Heath House* (VI). H, R and S.—*Chelford, Astle Hall* (VIII). S and sleet showers.—*Southport, Birkdale* (VIII). Severe westerly gale and very high sea.—*Broughton-in-Furness* (VIII). S.—*Seathwaite Vic.* (VIII). S, H and cold wind.—*Unthank Hall* (X). S.—*Ulpha Vic.* (X). S and H.—*Glasgow, Queen's Park* (XIV). S.—*Fearn, Lower Pitkerrie* (XVIII). S.—*Golspie, H.R.S.* (XIX). S.—*Currygrane* (XXI). S and H.

16th—April 15th.—*Temple Combe, Stowell Rectory* (V). Absolute drought.

16th—April 28th.—*Glastonbury, High Street* (V). Only ·08 in. of R.

16th—April 29th.—*Totland Bay* (II). Absolute drought.

16th—May 15th.—*Worth, South Hill* (II). Continuous drought for 59 days.

17th—20th.—*Sibton Vicarage* (IV). S showers.

17th—31st.—*Knaresborough, Farnham* (IX). Absolute drought for 15 days.— *Thixendale* (IX). Absolute drought for 15 days.

17th—April 15th.—*Lewes, Bedford Lodge* (II). Absolute drought for 30 days.—*Oxford, Elsfield* (III). Absolute drought for 30 days.—*Tewkesbury, Beckford* (VI). Absolute drought of 30 days.—*Edenhall Vic.* (X). Partial drought for 30 days, with ·09 in. of R.

17th—April 16th.—*Pyrton Manor* (III). Total drought for 31 days.—*Cheltenham, Naunton Park* (VI). Absolute drought.—*Broughton-in-Furness* (VIII). Absolute drought of 29 days.

17th—May 13th.—*Ludlow, Ashford House* (VI). Partial drought; 58 days with ·57 in. of R.

17th—May 14th.—*Lower Cousley Wood* (II). Between these dates only ·04 in. of R fell on April 7th.—*Welshpool, Poolquay Vic.* (XI). Partial drought for 59 days.

17th—May 15th.—*Falmer* (II). Sixty days drought.

17th—May 17th—*Tenterden, Little Westwell* (II). Partial drought, with only ·05 in. of R.—*Lyndhurst, Cuffnells* (II). Only ·04 in. of R.

18th—April 3rd.—*St. Michaels-on-Wyre* (VIII). No R.

18th—April 15.—*St. Albans, The Grange* (III). Absolute drought for 29 days.—*Colchester, Lexden* (IV.) Absolute drought for 29 days.—*Braintree, Fennes* (IV). Absolute drought for 29 days.—*Rowton Grange* (VIII). Only ·04 in. of R in the 29 days.—*Wetwang* (IX). Absolute drought for 29 days.—*Clonmel, Bruce Villa* (XX). R only on March 31st.

18th—April 17th.—*Lancaster, Rose Bank* (VIII). Absolute drought.

18th—April 30.—*Bishops Cannings* (V). Absolute drought.—*Lancaster, Rose Bank* (VIII). Only ·35 in. of R in the 42 days.

18th—May 16th.—*Maidstone, Debtling* (II). Only ·02 in. of R in the 60 days.

19th—20th.—*St. Johns* [*Devonport*] (V). White frost.

20th—May 13th—*Stonehouse, Haywardsfield* (VI). No R.

22nd—April 15th.—*Hawkedon Rectory* (IV). Absolute drought for 25 days.

25th—*Nottingham, Beeston Fields* (VII). The fifth consecutive day with temp. above 60°.

APRIL.

1st—21st.—*Widecombe Vicarage* (V). Absolute drought.

2nd—15th.—*Pool Quay Vicarage* (XI). Absolute drought for 14 days.

6th.—*Melrose, Abbey Gate* (XII). L in the evening; flashes in quick succession, seemed to rise from the ground.—*Inverary, Newtown* (XV). TS.—*Ben Nevis Observatory* (XVIII). Severe TS 6 p.m. to 9 p.m. St. Elmo's fire at times.—*Drumnadrochit* (XVIII). Sharp TS between 8 p.m. and 10 p.m.

13th.—*Monmouth, The Hendre* (XI). An unusually thick haze at midday, causing a similar appearance to a total eclipse of the sun.

13th—15th.—*St. Johns* [*Devonport*] (V). White frosts.

14th.—*Edinburgh, Blacket Place* (XIII). A partial drought of 39 days ended on this date.—*Cork, Clarence Place* (XX). Partial drought of 42 days, with only ·27 in. of R, ended on this date.

15th.—*Muswell Hill* (I). Absolute drought of 29 days terminated on this date.—*Finchley, Etchingham Park* (I). Absolute drought of 25 days ended on this date, and but for ·01 in. of R on March 21st, would have lasted 30 days.—*Emsworth, Redlands* (II). Absolute

drought of 30 days ended on this date.—*Market Drayton, Old Springs* (VI). Absolute drought for 29 days ending on this date.—*Wakefield, Stanley Grange* (IX). Absolute drought of 14 days terminated.—*Dunkeld, Inverbraan* (XVI). S.

16th.—*Berkhampstead, Rosebank* (III). Termination of an absolute drought of 30 days.—*Walthamstow, Forest Road* (IV). The first R since March 17th.—*Alderbury* (V). The first R for 31 days.—*Southport, Birkdale* (VIII). Termination of remarkable drought, no R having entered the gauge for nearly 29 days.—*Gorebridge, Middleton* (XIII). S.

16th—29th.—*Compton,* [*Petersfield*] (II). Absolute drought.

17th.—*Bottesford* (VII). The first R for 30 days.

19th.—*Southport, Birkdale* (VIII). Solar halo almost throughout the day, with bright parhelia at 3.15 p.m.—*Douglas, Victoria Road* (XI). TS at 7.30 p.m.—*Melrose, Abbey Gate* (XII). L.—*Colmonell* (XIV) T and L.

20th.—*Finchley, Etchingham Park* (I). T between 6 a.m. and 7 a.m., and L at 7 p.m.—*Wallington* (II). T and L.—*Banbury, Bloxham Grove* (III). T and H at 3 p.m.—*Cheltenham* (V). Max. temp. 80°·0; the highest recorded in May, and higher than any reading in five out of the preceding 15 years.—*Ketton Hall,* [*Stamford*] (VII). T and R at 7.30 p.m.—*Derby, Findern* (VII). TS.—*Meltham, Harewood Lodge* (IX). TS.—*Coupar Angus* (XVI). Severe T and L.—*Dalnaspidal* (XVI). T, L, R and H.—*Ben Nevis Observatory* (XVIII). T from 4.15 p.m. to 4.50 p.m. St. Elmo's fire at 2 a.m.

21st.—*Galway, Queen's College* (XXII). T and L, with heavy showers.

22nd.—*Broadford, Hurdlestown* (XX). T and L at 1 a.m.

25th.—*Poole, Parkstone* (V). Very dry; relative humidity at 4 p.m. 32.—*Nottingham, Beeston Fields* (VII). The seventh consecutive day with temp. over 70°.

26th.—*Poole, Parkstone* (V). Very dry; relative humidity at 1 p.m., 28.

28th.—*Harlow, Sheering* (IV). The 36th consecutive rainless day.—*Alderbury* (V). This day ended a period of 55 days with ·11 in. of R.

28th—30th.—*Dalnaspidal* (XVI). S daily.

29th.—*Bedworth Cemetery* (VI). TS at 5.45 p.m., with very vivid L.—*Knutsford* (VIII). T at 3.30 p.m.

29th and 30th.—*Keswick, The Beeches* (X). H showers, and S on the mountains.—*Loch Shiel, Glenaladale* (XVIII). S on the hills.

MAY.

1st.—*Buglawton Vicarage* (VIII). In 18 minutes ·23 in. of R fell.

2nd—16th.—*Clonmell, Bruce Villa* (XX). Rainless.

4th.—*Tavistock, West Street* (V). Severe TS for an hour.

7th and 8th.—*Melmerby* (X). Helm wind.

10th.—*Berkhampstead, Rosebank* (III). Wild dog rose in flower; 25 days in advance of the earliest time for 7 years.

10th.—*Meltham, Harewood Lodge* (IX). Parhelion at 6.55 p.m.

11th.—*Berkhampstead, Rosebank* (III). Over 13 hours of sunshine recorded. Relative humidity 34 at 3 p.m.

13th.—*Cheltenham, Southam Villa* (VI). Strawberries ripe.

15th.—*Muswell Hill* (I). Partial drought of 73 days, with only ·15 in. of R, ended on this date.—*Birchington, Thor* (II). The first shower since March 17th.—*Easton Maudit Vic.* (III). In the 73 days —*i.e.*, one-fifth of a year, ending on this date, just one-fifth of an inch of R fell.—*Ashburton, Druid House* (V). TS with R and H; ·90 in. between 0.45 p.m. and 1.20 p.m.—*Clifton* (VI). TS.—*Cirencester, Further Barton* (VI). TS.—*Stroud, Stanley Park* (VI). Heavy TS, with ·89 in. of R between 3 p.m. and 4 p.m.—*Stroud, Upfield* (VI). TS from S.E. from 3 to 4 p.m., with ·65 in. of R. A house, a colt, a cow, and an oak tree were struck within a radius of 3 miles.—*Cheltenham, Southam Villa* (VI). TS towards N.E. at 3 p.m.—*Ross, The Graig* (VI). TS from 4 to 5 p.m.—*Pendock Rectory* (VI). T all round from 2.15 p.m. to 6 p.m.—*Monmouth, The Hendre* (XI). TS in afternoon.

15th—17th.—*Pitsford, Sedgebrook* (III). TSS; with heavy R on the latter day, 1·03 in.

16th.—*Cranbrook* (II). Partial drought of 76 days, with ·30 in. of R ended.—*Oxford, Magdalen College* (III). TS in evening.—*Penty Park* (XI). TS.

17th.—*Finchley, Etchingham Park* (I). TS with vivid L.—*Birchington, Thor* (II). Distant T and L with very slight shower.—*Walthamstow, Forest Road* (IV). Distant TS at 4.15 p.m., and ·12 in. of R in twenty minutes.—*Ipswich, Bishops Hill* (IV). TS at noon.—*Diss* (IV). A welcome fall of ·33 in., after 14 rainless days.—*Bedworth Cemetery* (VI.) Very vivid L, heavy T, and 1·64 in. of R.—*Willington* (VII). T and heavy R 1·66 in.—*Derby, Findern* (VII). TS ·86 in. of R fell between 3 and 5 p.m.—*Wakefield, Stanley Grange* (IX). Very heavy R from the E., 1·27 in.

17th and 18th.—*Rendlesham Hall* (IV). T.

17th—19th.—*Ketton Hall* [*Stamford*] (VII). T daily and H on 18th.

18th.—*Emsworth, Redlands* (II). S.W. gale.—*Nottingham, Beeston Fields* (VII). T and heavy R.—*Gawthorpe Hall* (VIII). In little over an hour ·93 in. of R fell.—*Thixendale* (IX). TS.—*East Layton Hall* (IX). T and vivid L.—*Duddon Valley, Ulpha Vicarage* (X). TS at 7 p.m.—*Keswick, The Beeches* (X). TSS 1.38 to 2.15 p.m., 4.35 to 5.20 p.m., and 7.45 to 8 p.m.—*Melmerby* (X). TS.

18th and 19th.—*Knutsford, Heath Side* (VIII). TSS.

18th—20th.—*Barnard Castle, Whorlton* (X). T daily.

18th—21st.—*Helensburgh* (XV). Severe TSS.

19th.—*Kington, Eywood* (VI). T and heavy R, 1·40 in.—*West Bromwich* (VI). In one hour ·40 in. of R fell.—*Keswick, The Beeches* (X). TS 4 to 4.30 p.m.—*New Galloway, Glenlee* (XII). T and L.—*Glasgow, Queens Park.* (XIV). Great TS.—*Broadford, Hurdlestown* (XX). T and L at 1.30 p.m.

19th and 20th.—*Melmerby* (X). T.—*Crickhowel, Gwernvale* (XI). T and H.

19th—21st.—*Melrose, Abbey Gate* (XII). R, T and L.

20th.—*Wath-upon-Dearne, Chapel Street* (IX). L, T, H and R.—*Llanfrechfa Grange* (XI). T and heavy R storms.—*Monmouth, The Hendre* (XI). Boisterous, with heavy showers and distant T.

20th.—Several TSS in Durham and South Northumberland. One man killed at Medomsley, near the Consett Works, in Durham, and another near S. Shields; houses were struck at Gateshead, Walker and Gosforth, and seven sheep were killed at Stocksfield, near Newcastle.

20th—June 21st.—*Oxford, Elsfield* (III). Partial drought; 33 days with ·30 in. of R.

21st.—*Stronvar* (XVI). T and L from 1 to 3 p.m.—*Invershin* (XIX). T and L.—*Jamestown, Albert Lock* (XXII). R 2·75 in.; it commenced at 1 a.m. and lasted till 8.30 a.m., flooding all low ground.

21st—June 21st.—*Easton Maudit* (III). Partial drought for 32 days; R ·30 in.—*Ludlow, Ashford House* (VI). Partial drought; 32 days with ·32 in. of R.

22nd—June 21st—*Colchester, Lexden* (IV). Only ·29 in. of R in 31 days.

24th—June 21st.—*Pool Quay Vicarage* (XI). Partial drought; 29 days with ·26 in. of R.

27th.—*Coupar Angus Station* (XVI). TS.

28th.—*Edinburgh, Blacket Place* (XIII). L.

29th.—*Iford* (II). TS.—*Ipswich, Bishops Hill* (IV). TS from noon

till 2 p.m.—*Woodbridge, The Cedars* (IV). Between noon and 2.15 p.m., ·78 in. of R fell.—*Rendlesham Hall* (IV). Heavy T, L and R.—*Diss* (IV). Heavy shower, with T in the forenoon.—*Willington* (VII). H and R.—*Wath-upon-Dearne, Chapel Street* (IX). L and T.

29th—June 22nd.—*Lewes, Bedford Lodge* (II). R only ·10 in.

30th and 31st.—*Dorking, Abinger Hall* (II). Frost, which blackened potatoes and scarlet runners.

30th—June 18th.—*Ospringe, Lorenden* (II). Partial drought; R only ·04 in.

31st.—*Walthamstow, Forest Road* (IV). Air saturated at 8 a.m. for the first time since March 23rd.—*Bedworth Cemetery* (VI). Sharp frost.

JUNE.

1st.—*Berkhampstead, Rosebank* (III). Frost on grass.

2nd.—*Bolton, The Park* (VIII). TS.

3rd.—*Templecombe, Stowell Rectory* (V). TS between 3 and 4 p.m. —*Cirencester, Further Barton* (VI). T and L.—*Handsworth* (VI). TS. —*Knutsford, Heath Side* (VIII). TS at 2 p.m.—*Forres, H.R.S.* (XVII). TS from 5 to 6 p.m.—*Invershin* (XIX). T and L.

4th.—*Maidenhead, Castle Hill House* (II). In 19 minutes ·15 in. of R fell.—*Oxford, Magdalen College Laboratory* (III). Heavy TS at noon.— *Diss* (IV). TS.—*North Walsham, Worstead* (IV). Very local R, ·89 in. fell in 25 minutes.—*West Bromwich* (VI). In 90 minutes ·34 in. of R fell.—*Harewood Lodge, Meltham* (IX). TS.

4th.—Two houses very much damaged by L at Kirkheaton, near Huddersfield; but though the furniture was nearly all destroyed, the only personal injury was a slight burn on one child.

6th—21st.—*Emsworth, Redlands* (II). Absolute drought for 16 days.

7th.—*Ulpha Vicarage* (X). T and H storm, ·70 in. falling in 20 minutes.—*Kirkoswald, Melmerby* (X). TS.

7th and 8th.—*Keswick, The Beeches* (X). Heavy TSS.

7th—21st.—*Melrose, Abbey Gate* (XII). Absolute drought for 15 days.

7th—22nd.—*Wetwang* (IX). Absolute drought for 16 days.

7th—24th.—*Douglas, Villa Franca* (XX). No R for 18 days.

8th.—*Kirkpatrick Durham, Glenlair* (XII). In one hour, during a TS, 1·03 of R fell.

8th.—R at Braemar = ·82 in. in half-hour, and considerable flooding thereby.

8th and 9th.—*St. Albans, The Grange* (III). TSS.—*New Galloway, Glenlee* (XII). T and L, with heavy R on the latter day.

9th.—*Miltown Malbay* (XX). Distant T and L.—*Dublin* (XXI). During a TS in the afternoon, black R fell at Parsonstown and Edgeworthstown. The colouration is attributed to carbon derived from the smoke of Dublin, Belfast, &c., which had accumulated for some days under anticyclonic conditions.

10th.—On Saturday afternoon an extraordinary storm was experienced in the neighbourhood of the Welsh gold mines, Gwynfynydd and Cwmhesian, about 9 miles from Dolgelly. About 2 p.m. a TS occurred, with a deluge of rain, which, coming down the steep hillsides, carried away footpaths and greatly damaged parish and occupation roads. The storm continued about an hour, and after it had ceased the miners were startled by a roaring sound in the upper part of the Gwynfynydd valley. Presently a huge torrent of water was seen rolling down the bed of the Mawddach, bringing with it stones and *débris*. The water, which was from 3 to 4 ft. deep, struck the bridge near the Morgan mine, leaping over the buttresses into the roadway, and finally thundering over the Mawddach fall (85 ft.) into the Salmon pool below, which rose 6 ft. in as many minutes. The avalanche of water then flowed into the broader bed of the river beyond, and expended its force on the flats of the Ganllwyd valley. The tributary streams of the Mawddach—the Eden and the Cair—were unaffected by the storm, and it is believed that the sudden and unprecedented flood was occasioned by the bursting of a waterspout in the higher reaches of the Gwynfynydd valley. Fortunately, no material damage was done, except to the roads, which in many places were impassable.

10th and 11th.—*Broadford, Hurdlestown* (XX). T and L.

11th.—*Dalnaspidal* (XVI). T and L.—*Miltown Malbay* (XX). Violent T and L.

13th.—*Douglas, Victoria Road* (XI). Severe TS, buildings struck by L.—*Ben Nevis Observatory* (XVIII). TS from 1 to 7 p.m., from 6 to 6.20 p.m. the thunder cloud rested on the summit, when several vivid flashes of L were noted; the last flash came into the observatory, a loud report being heard in the office, the cable was fused, and communication with Fort William was interrupted for some days.

13th—15th.—*Treherbert, Tyn-y-waun* (XI). TSS.

14th.—*Walthamstow, Forest Road* (IV). TS at 7.15 p.m.—*Bishops Cannings* (V). Heavy TS with 1·35 in. of R in one hour; quite an

inch is estimated to have fallen in half-an-hour.—*Devizes, Wiltshire County Asylum* (V). T and heavy R from 2.40 to 3 p.m., ·99 in. falling in the 20 minutes.—*Stroud, Upfield* (VI). TS at 3 p.m., a house struck by L.—*Dowles* [*Bewdley*] (VI). Tempest, with large H stones and heavy R, nearly 1·50 in. fell in three hours after midday. —*Bridgnorth, Coton Hall* (VI). In less than three hours 1·53 in. of R fell.—*Handsworth* (VI). TS.—*Brewood, Belvide Res.* (VI). Severe TS from 4.30 p.m. to 6.30 p.m., during which time 2·38 in. of R fell.— *Penty Park* (XI). T and L.—*Broadford, Hurdlestown* (XX). The worst TS in East Clare for years; seven cows were killed in one field, and two horses ploughing near Newmarket-on-Fergus were also killed, and the ploughman was much injured.—*Miltown Malbay* (XX). T and L.—*Galway, Queen's College* (XXII). Much L and T.

14th.—In Bridgnorth the excessive rain caused the flooding of many streets and basements. About 1 p.m. a stone cross was knocked off Holy Trinity Church, Witney, Oxon, and the roof otherwise damaged by L. In North Wiltshire it is stated that in an area of four miles there were four farms burning at once, all ignited by L. Two buildings were damaged near Douglas, I. of Man.

14th and 15th.—*Oxford, St. Giles* (III). T and L at midday on the 14th, and a TS in afternoon on 15th.

15th.—*Alresford House* (II). Heavy TS.—*Stroud, Upfield* (VI). TS 4·40 p.m. to 5·15 p.m., incessant T and L, but little R.—*Seathwaite Vicarage* (VIII). T and L.—*Rhiwbryfdir* (X). TS.—*Shirenewton Hall* (XI). Between 6.12 p.m. and 6.17 p.m. ·62 in. of R fell.—*Treherbert* (XI). Slight fall of S.—*Forres, H.R.S.* (XVII). TS in afternoon.

15th.—At Minsterworth, near Gloucester, two men and a boy took shelter under an elm, the tree was struck by L, two of them were injured; the boy said that he was not much hurt, but he died in 10 minutes. At Barracharing, in the Parish of Donoughmore, Co. Cork, two men were killed by L about 4 p.m., and a girl was killed by L in a field near New Ross.

15th and 16th.—*Invershin* (XIX). T without R.

18th.—*Lancaster, Rose Bank* (VIII). The hottest day remembered. —*Pawston* [*Coldstream*] (X). The highest shade temp. for 20 years, 90°.

19th.—*Sheppey, Leysdown* (II). TS about 6.30 p.m.—*Berkhampstead, Rosebank* (III). For a week ending on this date the sun shone for an average of 12 hours a day.—*Ipswich, Bishops Hill* (IV). A peculiar TS, with dust cloud and whirlwinds, occurred about 6 p.m.—*Rendlesham Hall* (IV). TS at 6 p.m.—*Little Saxham Rectory*

(IV). Very hot, temp. 92°, TS in afternoon.—*Diss* (IV). TS in afternoon.—*Wymondham* (IV). TS.—*Denver* (IV). TS.—*Horncastle, Hemingby* (VII). TS in afternoon.—*Hay, Gwernyfed Park* (XI). Between 1.30 p.m. and 2.30 p.m. 1·40 in. of R fell.—*Killarney, Woodlawn* (XX). TS.

19th.—Severe TS at night at Sheerness, the Victoria Hall struck by L. Heavy TS at Blaina, Monmouth, in afternoon, with large H; two houses struck by L.

21st.—*Berkhampstead, Rosebank* (III). Until this date no R fell in the daytime for 28 days, and only twice at night.

22nd.—*Diss* (IV). Several TSS in the afternoon.—*Wymondham* (IV). TS.—*Treherbert, Tyn-y-waun* (XI). TS.

23rd.—*Ingleby Greenhow Vicarage* (IX). Downpour of large H, the effects persisting till winter; many apples were knocked off the trees, and the rest scarred and almost wasted, while the leaves were everywhere riddled.

27th.—*Bolton, The Park* (VIII). Brief, but severe TS.—*Dungannon Rockdale* (XXIII).* R began about 0.30 p.m., and at 7 p.m. 3·33 in. was measured, the fall in the day being 3·57 in.—*Stewartstown, Ardtrea Rectory* (XXIII). Remarkable fall of R, 4·16 in. in 8 hours. —*Horn Head* (XXIII). In less than half-an-hour ·50 in. of R fell.

28th.—*Forres, H.R.S.* (XVII). TSS and heavy R.

JULY.

2nd.—*Sedgebrook* (III). Violent TS, with 1·19 in. of R.—*Stainby* (VII). Heavy TS, lasting one and a-half hours.—*Normanton-on-Wolds* (VII). TS commenced at 4.10 p.m. and lasted 32 minutes, during which time ·55 in. of R fell.—*Wakefield* (IX). T and L. —*Sunderland* (X). In 20 minutes ·75 in. of R fell with T.—*Pawston* (X). TS from 2.35 to 2.50 p.m., with ·37 in. of R.—*Edinburgh, Blacket Place* (XIII). TS from 6.43 to 7.15 p.m.

2nd.—Severe TSS were prevalent on this day; the following are additional records:—*Leicester.* In afternoon, TS; man killed under a tree in Spinney Hill Park.—*Uppingham.* TS 8.30 to 10 p.m.; house struck.—*Billingboro'.* TS in eve. Horse killed at *Pickworth.*—*Gainsboro'.* The *Misson* schoolroom struck, and the Rev. F. W. Keene (Vicar) injured. A telephone pole struck in *Gainsboro'*, and

* See also *Met. Mag.*, August, 1893, p. 101.

horses at *Epworth* and *Laughton.*—*Wakefield.* The Grammar School struck in the afternoon.—*Doncaster.* TS between 5 and 6 p.m. Eight sheep killed under a tree; the Workhouse struck by L.—*Leeds.* TS at 2 p.m., and in evening, three houses struck.—*Bradford.* Police sergeant struck and much injured while sending a telegram.—*Whitby.* Two TSS were seen at once in the evening—one at sea and one on land. A cow-shed struck, and three cows killed. A horse killed at *Newholm.*—*Richmond, Yorks.* At 1.50 p.m. military tent struck by L, seven men injured, but all recovered.—*Yarm.* TS at night; three houses struck, and in one the gas ignited at the meter.—*Sedgefield.* Severe TS in afternoon and evening; one man knocked down, and two cows killed.—*Chester-le-Street.* A whirlwind was seen coming from the W. down Pelaw Lane, at its junction with the Newcastle Road; at the foot of Tileshed Bank it caught a garden wall, and levelled it, carrying some of the masonry across the main road into a garden beyond. A druggist's warehouse was struck by L.—*Sunderland.* School struck, children not injured.—*Newcastle.* At 1.30 p.m. a house on Sheriff Hill was struck and much damaged, and at 2.30 p.m. another in Gladstone Terrace.—*Ballater.* Severe TS in afternoon; house struck. A waterspout or cloud-burst occurred on the Cheviots. (See separate article.)

3rd.—We have been favoured by Mr. G. R. Jebb, C.E., of the Birmingham Canal Navigation, with the following report:—

Ocker Hill Works, Tipton, Staffordshire. — R commenced with distant T, at 5.45 p.m.—wind S.W.—and in 20 minutes it placed 4 inches of water on the Wolverhampton Level of canal (the length of this level is about 60 miles). At 6.15 p.m. the canal was overflowing its banks, the level having risen about $7\frac{1}{2}$ inches in the space of half-an-hour. From about 6.30 p.m. the storm was most furious, and about this time the thunder was over the works, the rain continuing in dense volumes, and did not cease till 7.10 p.m. Many of the loaded boats were kept from sinking by our men scooping the water out of them during the storm. From the following information received from various persons, I am of opinion that the rainfall for the above-stated time—viz., one hour and twenty-five minutes—was not less than $4\frac{1}{2}$ inches. J. Walters and S. Creswell report that the water in one of our empty wood boats, which measures internally 67 ft. 2 in. by 6 ft. 7 in., by 3 ft. 4 in. deep, the water was 1 inch over the kelson, which is 3 in. thick above floor of boat, showing the depth of water in boat = 4 inches. A. Beazley

took particular notice of a tank we have for dipping hurdles. When he left work at 5 p.m. the previous day the tank was empty ; the next morning he measured the water in the tank and found it was 4¼ inches. I myself, later in the day, measured the water in the tank and found it 4 inches deep. Size of tank, 9 ft. 6 in. by 6 ft. 5 in. Mr. Fisher, of Wednesbury Oak Iron Works, Tipton, stated to me that he placed an ordinary tub, about 21 inches across the bottom and 26 inches across the top, and fully 4 inches of R was in the tub when the storm was over. This is by actual gauge. The area of the rainfall extended to Willenhall, Darlaston, Bilston, Wednesbury, Great Bridge, Dudley and Tipton.—G. ROBINSON.

3rd—*Apethorpe Lodge* (III). A tropical R, 2·47 in. falling in one hour during a TS.—*Cheadle, The Heath House* (VI). Heavy R, 1·97 in. between 3.40 and 4.40 p.m.—*Knutsford, Heath Side* (VIII). TS.—*Meltham, Harewood Lodge* (IX). Severe TS from 1.15 p.m. to 4.30 p.m.—*Grasmere, Pavement End* (X). Between 6.30 and 7.30 p.m. ·80 in. of R fell.

3rd.—TSS were again prevalent ; the following are chiefly notes of accidents :—*Rockingham, Northamptonshire.* House struck.—One man killed by L under a tree near Stoke-upon-Trent, and another under an archway at Hanley, Staffordshire.—*Melton Mowbray.* House struck at 6 a.m.—*Pontefract.* A farmer killed at Kellingley at night. —*Church Fenton, Yorks.* Tree struck in afternoon.—*Doncaster.* Very heavy R in evening, cellars flooded.—*Bramham*, near *Wetherby, Yorks.* H in a field was 2 ft. deep.—Six sheep killed at *Harewood*, two bullocks at *Tockwith*, one cow at *Weeton*, one at *Kirk Deighton*, and one at *Long Marston.* Pony killed near *Harrogate.*

4th.—*Birchington, Thor* (II). T and L.—*Lyss, Lingwood* (II). L and T.—*Emsworth, Redlands* (II). T and L.—*Druid House* (V). TS from 11 a.m. to 2 p.m.—*Stowell Rectory* (V). TS.—*Leeds, Elmete Hall* (IX). TS.

7th and 8th—*New Galloway, Glenlee* (XII). T and L.—*Colmonell* (XIV). T and L.—*Ben Nevis* (XVIII). Severe TS from 10.30 p.m. on 7th, to 2.35 a.m. on 8th, with St. Elmo's fire. TS again at 2.35 p.m., a flash of L coming inside the observatory.—*Invershin* (XIX). T and R.

7th—9th.—*Balquhidder, Stronvar* (XVI). T, L and R daily.

7th—10th.—*Wakefield* (IX). T and L daily.—*Helensburgh* (XV). Severe TSS.

8th.—*Wallington* (II). TS.—*Tenterden* (II). TS.—*Birchington, Thor* (II). T and L.—*Emsworth, Redlands* (II). T and L.—*Walthamstow,*

Forest Road (IV). Five distinct TSS in afternoon and ·11 in. of R between 5.40 and 5.47 p.m.—*Rendlesham Hall* (IV). TS.—*Little Saxham* (IV). Very hot; TSS all round.—*Great Glenham* (IV). Heavy TS.—*Diss* (IV). Heavy TS in afternoon.—*Hemingby* (VII). TSS from 1.30 to 8.30 p.m.—*Wath-upon-Dearne, Chapel Street* (IX). T and L.—*Meltham, Harewood Lodge* (IX). T more or less all day.—*Knaresborough, Farnham* (IX). T and L; trees struck and sheep killed; a H storm passed S. of the Nidd from W. of Harrogate to E. of Thorne by Doncaster, a H stone being measured $1\frac{3}{8}$ in. in diameter.—*Baldersby* (IX). TS of almost unexampled severity throughout Swaledale and the vale of Mowbray. The storm at 2 p.m. came from the E. with much T and vivid L, accompanied by H stones, some of which were an inch in diameter. In Richmond 100,000 panes of glass were broken, while at the Militia camp just outside, the canvas tents were pierced through and through by the H. Between 2 p.m. and 4 p.m. 1·33 in. fell.—*East Layton* (IX). Heavy TS and a tremendous H storm at Richmond, some of the stones being 3 inches in diameter [? circumference, Ed.]—*Dinsdale Rectory* (X) Within three hours about 1 a.m., 1·40 in. of R fell.—*Barnard Castle, Whorlton* (X). TS with H.—*Sunderland* (X). TS and 1·59 in. of R in 24 hours from midnight to midnight.—*Gateshead, Southdene Tower* (X). TS and 1·30 in. of R.—*Ulpha Vicarage* (X). TSS.—*Melmerby* (X). Severe TS with H in the afternoon.—*Dumfries, Ivy Bank* (XII). Severe TS, accompanied by H of extraordinary size, many stones measuring an inch to an inch and a-half in length, and two to three inches in circumference; the H storm lasted less than 15 minutes, but did great damage to glass and crops. It swept up the Nith Valley from S.W. to N.E.—*Dalnaspidal* (XVI). T, L and R.—*Forres H.R.S.* (XVII). T and L.—*Drumnadrochit* (XVIII). TS from 1 p.m. to 2 a.m. on 9th.—*Killarney* (XX). In 2 hours 1·15 in. of R fell.—*Miltown Malbay* (XX). T and L.—*Galway, Queen's College* (XXII). L and T with heavy showers.

[It would take many pages to give a full account of the damage by L and by H on the 8th; it occurred in most parts of the British Isles, except in Divisions V. and XI. As regards the H and some other damage, Mr. Marriott's paper in the *Quar. Jour. Roy. Meteor. Soc.*, vol. xx., p. 31, should be consulted.]

8th and 9th.—*Broxbourne* (III). TSS.—*Berkhampstead, Rosebank* (III). TSS.—*Keswick, The Beeches* (X). TSS.—*Lilliesleaf, Riddell* (XII). TSS.

9th.—*Walthamstow, Forest Road* (IV). In ½ minute ·015 in. of R

fell.—*Diss* (IV). S.W. gale and TS.—*Southport, Birkdale* (VIII). TS about 2 a.m., accompanied and followed by very heavy R, 1·18 in.—*Leeds, Elmete Hall* (IX). TS.

10th.—*Whittle-le-Woods Vicarage* (VIII). Between 11 a.m. and 0.25 p.m., 1·35 in. of R fell.

10th.—Severe TS near *Keighley, Yorks*, about 3 p.m., there being eleven separate cases of damage by L reported from that neighbourhood.

10th and 11th.—*Dalnaspidal* (XVI). T, L and R.

11th.*—*Sedgebrook* (III). TS.—*Bedford, St. Peter's Street* (III). Heavy H and TS in the morning, ·88 in. falling in about half-an-hour.—*Cranmer Hall* (IV). A TS broke over this house about 2 p.m., and 2·40 in. of R fell in about 75 minutes; further heavy R fell in the evening and night, making the fall for 24 hours 4·48 in.—*Devizes, Wilts County Asylum* (V). In one hour ·91 in. of R fell.—*Druid House* (V). TS with heavy R.—*Bideford, Horwood* (V). R 2·57 in., the largest amount registered in 20 years; 2·42 in. fell between 1 p.m. and 6 p.m.—*Ross, The Graig* (VI). TL and ·31 in. of R between 5.31 and 5.41 p.m.—*Worcester, Diglis Lock* (VI). Heavy TS.—*Handsworth* (VI). TS.—*Thurcaston Rectory* (VII). TS with heavy R.—*Ketton Hall* (VII). TS at 11.45 a.m.—*Melbourne, The Grange* (VII). TS and 1·78 in. of R.—*Meltham, Harewood Lodge* (IX). TS.—*Keswick, The Beeches* (X). Heavy TS from 2.5 to 3.10 p.m.—*Grasmere, Pavement End* (X). Between 2.0 and 2.45 p.m. ·52 in. of R fell.—*New Galloway, Glenlee* (XII). T and L.—*Ben Nevis Observatory* (XVIII). TSS in afternoon.—*Galway, Queen's College* (XXII). L and T with heavy showers and squalls.

11th and 12th.*—*Knutsford, Heath Side* (VIII.) TSS.

12th.*—*Sheppey, Leysdown* (II). TS.—*Emsworth, Redlands* (II). T, L, H and R, ·78 in. fell between 2.30 p.m. and 2.55 p.m.—*Broxbourne* (III). TS.—*Oxford, Magdalen College* (III). Heavy TS in the afternoon.—*Manor Park* (IV). T and L 11.30 a.m. to 1.45 p.m.—*Walthamstow, Forest Road* (IV). T from 11 a.m. to 5 p.m. At 4.17 p.m. a heavy squall with T, and in 12 minutes ·46 in. of R fell.—*Maldon, Norton Hall* (IV). In 5 minutes ·38 in. of R fell.—*Diss* (IV). TS, with heavy R in afternoon.—*Little Saxham Rectory* (IV). Some R fell about 11.15 p.m. on 11th; about 1 a.m. on 12th there was a heavy shower, with distant T and L; about 7.30 a.m. it began to pour, and in an interval at 9 a.m. 3·00 in. was measured. R began

* See also *Met. Mag.*, August, 1893, pp. 101 and 102.

again in two or three minutes, and at 10.45 a.m. 2·05 in. more had fallen, making 5·05 in. in less than 12 hours. In the 24 hours ending 9 a.m. on 13th, 2·10 in. fell. There seems to have been a water-spout over a field about half a mile distant; a portion of the field was completely washed away, the main gullies being over 4 ft. wide. At the bottom of the field for about 18 yards wide it looked exactly like a sea-shore. A platelayer said he saw two clouds meet, and then apparently double over.—*Cheltenham, Southam Villa* (VI). TS at 4.30 p.m.—*Redditch* (VI). Heavy R; ·70 in. fell in 12 minutes—3.50 to 4.2 p.m.— *Meltham, Harewood Lodge* (IX). TS.—*Drumnadrochit* (XVIII). TS.—*Miltown Malbay* (XX). T and L.—*Balbriggan, Laragh* (XXI). T and L.—*Currygrane* (XXI). T and L and 1·14 in. of R.

12th and 13th.—*Stowell Rectory* (V). TSS.

13th.—*Maldon, Norton Hall* (IV). In 30 minutes ·94 in. of R fell. —*Further Barton* (VI). TS from 6 to 7.30 p.m.

16th.—*Weymouth, Wyke Regis* (V). TS with 1·95 in. of R.—*Balbriggan, Laragh* (XXI). T and L.—Serious flooding at Eastbourne. (*See* " Heavy Falls in Short Periods.")

16th and 17th.—*Edinburgh, Blacket Place* (XIII). T.

17th.—*Barnard Castle, Whorlton* (X). TS.—*Keswick, The Beeches* (X). Heavy TS with frequent and vivid L.—*Lilliesleaf, Riddell* (XII). TS.

21st.—TSS and very heavy R, producing local floods at *Fraserburgh* and *Banff*, in the N.E. of Scotland.

22nd.—*Douglas, Victoria Road* (XI). Dripping fog.

24th.—*Colmonell* (XIV). T and L.—*Watten, H.R.S.* (XIX). TS in afternoon.

24th and 25th.—*New Galloway, Glenlee* (XII). T and heavy showers.

24th—26th.—*Douglas, Victoria Road* (XI). S.W. to N.W. gales.

26th—*Finchley, Etchingham Park* (I). L and T between 9 and 9.30 a.m., and ·33 in. of R in ten minutes.—*Wallington* (II). TS.—*Birchington, Thor* (II). T and L.—*Worthing, Heene* (II). Sharp TS, with ·25 in. of R in 20 minutes.—*Manor Park* (IV). T and L.—*Walthamstow, Forest Road* (IV). TSS at 10 a.m., 3 p.m., 6.30 p.m., and 9 p.m. *Rendlesham Hall* (IV). TSS.—*Meltham, Harewood Lodge* (IX). TS.

29th.—*Watten H.R.S* (XIX). TS.

30th.—*Birchington, Thor* (II). T and L.—*Sheppey, Leysdown* (II). TSS.—*Diss* (IV). TS in afternoon.

30th and 31st.—*Ketton Hall* (VII). T.—*Wakefield* (IX). T and L.

31st.—*Wath-upon-Dearne, Chapel Street* (IX). TS.

AUGUST.

2nd.—*Berkhampstead, Rosebank* (III). Previous to this date no water had penetrated the 2½ feet of uncropped soil in the percolation gauges, since the end of March, or for 4 months.

3rd.—*Druid House* (V). Heavy R and fog all day.—*Almondsbury* (VI). Between 1.5 and 1.50 p.m. ·85 in. of R fell.—*Cheltenham* (VI). In 20 minutes ·46 in. of R fell.—*Rotherby Hall* (VII). Between 5 p.m. and 6.30 p.m., 1·47 in. of R fell.—*Waltham-le-Wolds* (VII). In 2 hours 10 minutes from 4 p.m. 1·60 in. of R fell.—*Watten, H.R.S.* (XIX). TS.

4th.—*Kensington, Edith Road* (I). TS.—*Emsworth, Redlands* (II). T, L, H and R, 5 p.m. to 6.30 p.m.—*Datchworth Rectory* (III). TS, ·44 in. of R fell in 20 minutes.—*Manor Park* (IV). T and L.—*Walthamstow, Forest Road* (IV). Two severe TSS between 2 and 4 p.m., with ·73 in. of R, most of it between 3 and 3.15 p.m.—*Worcester, Diglis Lock* (VI). Heavy TS.—*Normanton-on-Wolds* (VII). In 21 minutes from midday ·40 in. of R fell.—*Chelford, Astle Hall* (VIII). Sharp TS and heavy shower of R.—*Knutsford* (VIII). TS at 2.30 p.m.—*Wath-upon-Dearne, Chapel Street* (IX). L and T.—*Edinburgh, Blacket Place* (XIII). TS and heavy R from 1.40 to 2 p.m.—*Gargunnock* (XV.) TS; ·57 in. of R fell in less than two hours.

5th.—*Beverley, East Riding Asylum* (IX). In 1¼ hours 1·00 in. of R fell, the bulk falling in 20 minutes.

6th.—*Garvagh, Moneydig* (XXIII). The greatest TS remembered.

6th—21st.—*Lewes, Iford* (II). Fourteen rainless days.

8th.—*Galway, Queen's College* (XXII). L and T.—*Carrablagh* (XXIII). T and L commenced in the S.E. about 8 p.m., and in the S.W. about 9 p.m., gradually increasing and approaching; about midnight a great fall of R took place; about 0.45 a.m. the storms met and the display was most magnificent; about 1 a.m. the T and L were continuous, and the R for a quarter of an hour was tropical. The storm ceased at 1.30 a.m., total R 1·05 in.

8th—18th.—*Kensington, Edith Road* (I). Shade max. above 80° on 10 out of the 11 days.

9th.—*Wallington* (II). T and L.—*Slough, Upton* (III). L all night.—*Oxford, Magdalen College Laboratory* (III). Heavy T and almost continuous L at night.—*Banbury, Bloxham Grove* (III). Vivid L most of the night.—*Manor Park* (IV). T and L during the night.—*Alderbury* (V). Continuous vivid L and distant T.—*Druid House* (V).

L in the E. at 10 p.m.—*Stowell Rectory* (V) Fine display of L from cloud to cloud (E. and N.) from 10 p.m. to 1 a.m.—*Cheltenham* (VI). L at night.—*Ross, The Graig* (VI). Slight TS.—*Handsworth* (VI). TS.—*Ketton Hall* (VII). L after 8 p.m.—*Hemingby* (VII). TS at night.—*Derby, Findern* (VII). TSS all night.—*Knutsford* (VIII). L.—*Bolton, The Park* (VIII). TS and H.—*Shirenewton Hall* (XI). There were 11,540 flashes of L between E. and N. from 9 p.m. till 2 a.m. on 10th.—*Llanvihangel Court* (XI). TS at 4 p.m.—*Oystermouth* (XI). L.—*Balbriggan, Laragh* (XXI). T and L.—*Lisburn, Prospect Hill* (XXIII). Very severe TS, said to be the most severe for a considerable number of years. Only ·09 in. of R fell.—*Belfast, Springfield* (XXIII). T and L, the most vivid and continuous seen for many years, but not much R.—*Ballymena* (XXIII). Great TS, unprecedented for many years.

9th and 10th.—*Birchington, Thor* (II). T and L.—*Knaresborough, Farnham* (IX). T and L.—*Whorlton* (X). T, L and R.—*Colmonell* (XIV). T and L.—*Ben Nevis Observatory* (XVIII). L.

10th.—*Finchley, Etchingham Park* (I). Heavy TS between 1.45 and 2.30 a.m.—*Wallington* (II). L.—*Sheppey, Leysdown* (II). TS early.—*Berkhampstead, Rosebank* (III). TS and exceptionally heavy R between 2.40 and 3.20 a.m., ·52 in. falling in 20 minutes. *Walthamstow, Forest Road* (IV). TS in early morning; in one minute 70 flashes of L were counted. Very little R.—*Bishop's Hill* (IV). Very severe TS early, with almost incessant L of all colours.—*Rendlesham Hall* (IV). TS at 7 a.m.—*Diss* (IV). Sharp TS with H in morning.—*Ketton Hall* (VII). Heavy TS at 4 a.m.—*Chelford, Astle Hall* (VIII). Very hot; violent TS at night, lasting about 2 hours; L very frequent.—*Knutsford* (VIII) TS at 8 p.m.—*Preston Corporation Offices** (VIII). TSS. Much T and L, and heavy R from 4.5 p.m. to 4.25 p.m., then dead calm, and at 4.29 p.m. violent wind, blinding H (some stones being as large as a shilling), constant L, and much T and R; at 4.34 p.m. the H ceased, but the R continued till 4.40 p.m. R 2·09 in., believed to have fallen as follows:—

4.5 p.m. to 4.25 p.m.	...	...	...	...	·70 in.
4.25 ,, ,, 4.29 ,,	...	...	...	...	·04 ,,
4.29 ,, ,, 4.34 ,,	...	...	...	...	1·25 ,,
4.34 ,, ,, 4.40 ,,	...	...	...	...	·10 ,,

Haighton (VIII). Extraordinary rain-storm, 2·20 in.—*Wath-upon-Dearne, Chapel Street* (IX). TS.—*Ulpha Vicarage* (X). TSS.—*White-*

* See also *Met. Mag.*, September, 1893, p. 116.

haven (X). T and L.—*Keswick, The Beeches* (X). TSS at 2 a.m. and 10 a.m., and frequent T during the day.—*Melmerby* (X). T more or less all day.—*Llanfrechfa Grange* (XI). TS.—*Glasgow, Queen's Park* (XIV). Great TS.—*Stronvar* (XVI). T from 5 to 6 p.m., and T and L from 9.30 to 10.30 p.m.

10th—18th.—*Meltham, Harewood Lodge* (IX). Min. temp. in shade above 60° every day but the 13th and 15th.

11th.—*Pendock Rectory* (VI). TS at night.

12th.—*Ben Nevis Observatory* (XVIII). Aurora.

13th—15th.—*Wath-upon-Dearne, Chapel Street* (IX). L.

13th—18th.—*Cheltenham* (VI). Mean temp. 73°·1, the max. being above 80° each day.

13th—19th.*—High temp.

15th.—A whirlwind passed near Howden in Yorkshire. Some harvesters were at dinner in a field at Yokefleet when their victuals and plates were scattered in all directions, and a boy was caught up 6 or 7 ft. into the air and whirled round like a feather. Much damage was subsequently done on two neighbouring farms.

THUNDERSTORM IN STRATHNAIRN, AUGUST 15TH.

BRIDGES SWEPT AWAY—ROADS DENUDED OF SOIL.—IMMENSE DESTRUCTION OF GROWING CROPS.

The somewhat remarkable thunderstorm of Tuesday afternoon, which was startling but not destructive in the immediate neighbourhood of Inverness, was accompanied in the lower reaches of the valley of Strathnairn by a discharge of water from the clouds which has never before been experienced since the roads were made and the bridges built. The downpour is described by the inhabitants—permanent and accidental, including the navvies—as something quite extraordinary. They state that the rain fell in lumps, in bucketsful, and almost in solid form. The picturesque road leading from Culloden Tower down to the wooden bridge at Nairnside and up by Castleton, upon the south side of the river, is not only impassable but almost entirely removed. For the greater part of half a mile watercourses about three feet deep and four feet wide have been cut in the roadway. Indeed, it is said that some hundreds of tons will not replace the *solum* washed away. At one point there is a somewhat picturesque waterfall which has been improvised by the storm. The main public road, on the south side of the Nairn leading westwards to Craggie, has been rendered impassable by the utter destruction of the bridge upon the Culdoich burn, which separates the estates of Raigmore and Cantray, and recently separated the counties of Inverness and Nairn. The bridge, except a few stones upon the south side, has been utterly swept away. The waters appear to have surmounted the parapet. For a time, apparently, the bridge

* See *Met. Mag.*, September, 1893, p. 113.

kept them back. When it fell, overwhelmed by their force and weight, the accumulated waters rushed upon the new railway bridge, a peculiarly strong structure with a very wide capacity, There they seemed to have been checked until they rose to within two or three feet of the top of the arch. One of the wing walls of this new bridge has been partially destroyed, and the large stones of which the parapet was constructed have been carried into the bed of the stream.

Further down the glen, at Dalroy, the burn, rushing through a narrow gorge, is stopped by a bridge at the foot of a steep incline upon the road. This bridge, although overwhelmed by the water, stands, but not intact. The water appears to have flowed over the road of the bridge after the archway was unable to contain it, and it is fortunate for the archway that the wing wall and bridge approach succumbed. These were swept entirely away to a depth of from 12 to 15 feet, and the waters escaped, leaving the archway standing. They then spread out upon a level haugh, where the Dalroy burn joins the Nairn. Here there is a navvy hut belonging to Messrs. Mackay, contractors for a portion of the Aviemore line, accommodating about 50 persons. The hut is built upon posts about three feet above the level of the turf and a number of yards from the burn. The flood came down, and in a few minutes tore away the land between the burn and the hut. Shortly after the water stood about two feet within the floor of the hut, and the workmen's boxes were flooded. Of course, the navvies deserted the hut for the time and retired to the higher ground, but their effects have suffered from wet and damp, and the position of the hut yesterday was rather precarious.

An imposing illustration of the enormous density, bulk, and power of the water as it descended from the heavens is seen at the great railway embankment now being constructed at Culdoich farm-steading. There the rain water could not accumulate, as the top of the embankment is of course above the level of the surrounding lands. Yet the northern face of the bank is seamed and scarred by watercourses every other yard. Some of these are five feet deep, and from four to six feet wide. These fissures have been formed by the water just as it fell from the clouds.

At Dalroy a field of potatoes has been swept away. The soil is gone, and the gravel is holed by water pits many feet in depth.

The scene of the destruction was visited yesterday by Mr. Burns, chairman of the District County Council and Road Trust, and Mr. Black, C.E., the road inspector for the district. Arrangements were made for a ford being constructed within twenty-four hours over the Culdoich burn, and for a temporary bridge of wood being constructed over the Dalroy burn within, if possible, the same limited time, so that no interruption of the communication may take place. A meeting of the District County Council and Road Trust has been called for Friday, first to make arrangements for the restoring of the bridges, and completing the necessary repairs to the roads.

Another account says :—The storm burst between five and six o'clock, and the water descended in huge volumes. On the farm of Easter Daltullich, occupied by Mr. Sinclair, the debris came down with great force, and carried away the mill dam, practically leaving the place without water. Here the flood spread itself out, and covered about 18 acres of land, carrying in its

resistless rush whole fields of turnips and potatoes. The corn crop is also embedded in shingle and sand. At the lower end of Culdoich, on the farm occupied by Mr. Mackintosh, the water destroyed the greater part of the barley crop, and between the farms of Daltullich and Culdoich over 2,000 yards of fencing has been carried away.

About three weeks ago the same District Committee had a similar experience, when a thunder torrent carried down about a hundred tons of shingle and rock debris, and completely blocked the road from Dores to Inverfarigaig. Another block took place at the same time on the Stratherrick Road, and about a mile of the Gaick and Farr Road, leading from Strathnairn to Strathdearn was completely destroyed.

15th.—*Melrose, Abbey Gate* (XII). L in evening.—*Stronvar* (XVI). T, L and heavy R from 9.30 to 10.30 p.m.—*Forres, H.R.S.* (XVII). T, L and R.—*Ben Nevis Observatory* (XVIII). TS after 8 p.m., with St. Elmo's fire.—*Watten, H.R.S.* (XIX). Heavy storm of T and L at night.

17th.—*Druid House* (V). Dense fog till 10 a.m.—*Waterford, Tycor* (XX). In 15 minutes ·33 in. of R fell.

18th.—*Kensington, Edith Road* (I). Shade temp., min. 71°·3 ; 9 a.m. 83°·5 ; max. 91°·1 ; mean 81°·2.—*Berkhampstead, Rosebank* (III). The highest temp. (91°) recorded in 8 years.—*Diss* (IV). T and L in afternoon.—*Carlow, Browne's Hill* (XXI). In 45 minutes ·66 in. of R fell.

19th.—*Baldersby* (IX). In 7 minutes ·15 in. of R fell.—*Invershin* (XIX). T and heavy R at night.

19th and 20th.—*Millom, Leyfield* (X). Heavy R, 2·66 in. falling in the two nights.—*Ulpha Vicarage* (X). Heavy R, 3·58 in. in the two days.

19th—21st.—*Douglas, Victoria Road* (XI) Severe W.S.W. gale, with much R.

20th.—*Ketton Hall* (VII). Gale.—*Drum Park* (XII). In 10 hours 2·00 in. of R fell.—*Edinburgh, Blacket Place* (XIII). TS in early morning.—*Miltown Malbay* (XX). Heavy gale, S.W. veering to N.W.

20th and 21st.—*Diss* (IV). S.W. gale.

20th—23rd.—*Sedgebrook* (III). Squally.

21st.—*Whorlton* (X). S.W. gale. —*Edinburgh, Blacket Place* (XIII). Strong W. gale.—*Stronvar* (XVI). Heavy R, H, wind and T at 4 p.m., 1·60 in.—*Glenaladale* (XVIII). Heavy gale and 2·47 in. of R.

21st and 22nd.—*Melrose, Abbey Gate* (XII). S.W. gale.—*Ben Nevis* (XVIII). R 5·37 in. in the two days.

22nd.—*Middleton on the Wolds* (IX). Between 1.50 p.m. and 2.40

p.m. ·51 in. of R fell.—*Thixendale* (IX). TSS.—*Rendlesham Hall* (IV). Half a gale from S.W.—*Keswick, The Beeches* (X). Heavy TS from 1.20 to 1.38 p.m., with ·77 in. of R.—*Melmerby* (X). T, with showers in the afternoon.

22nd.—Several cases of damage by L: a farm labourer killed at *Broxholme, Lincoln*; a saw mill struck at *Babbington Colliery, Alfreton, Derby;* a house at *Golborne, Wigan;* two houses at *Thatto Heath, St. Helen's, Lancashire*, and one in *Holmfirth, Yorks.*

23rd. —*Great Glenham* (IV). Between 2 p.m. and 4.30 p.m. ·61 in. of R fell.

23rd—September 27th.—*Oxford, Elsfield* (III). Partial drought; 36 days with ·29 in. of R.

26th.—*Treherbert, Tyn-y-waun* (XI). Fine, with hoar frost.

27th.—*Watten, H.R.S.* (XIX). Slight frost at night.

29th.—*Treherbert, Tyn y-waun* (XI). Fine, with hoar frost.

30th.—*Douglas, Victoria Road* (XI). Severe squalls from S.W.

31st.—*Tenterden* (II). Severe TS from 6 to 7 p.m., with heavy R yielding ·33 in. A house was badly struck by L half-a-mile to S.W.

SEPTEMBER.

8th.—*Wallington* (II). TS.—*Emsworth, Redlands* (II). Distant T and L.—*Broxbourne* (III). TS.—*Hitchin, The Maples* (III). Smart TS; ·59 in. of R fell in little over 15 minutes, between 2.45 p.m. and 3.5 p.m.—*Hitchin, Bancroft* (III). In 20 minutes ·58 in. of R fell.—*Sedgebrook* (III). TS.—*Manor Park* (IV). T and L.—*Walthamstow Forest Road* (IV). Sharp TS just after noon, with gale of wind.—*Rendlesham Hall* (IV). TS, with H and R.—*Alderbury* (V). L and H at 10 a.m.—*Stowell Rectory* (V). TS from 9.55 a.m. to 10.5 a.m., with ·23 in. of R in 7 minutes.—*Cheltenham* (VI). TS.—*Ross, The Graig* (VI). L and T.—*Hoar Cross* (VI). T, L, and heavy R (1·08 in.).—*Handsworth* (VI). TS.—*Melbourne, The Grange* (VII). TS and 1·57 in. of R.—*Derby, Findern* (VII). TSS at 10 a.m. and 9 p.m.—*Knutsford* (VIII). TS, 7 p.m. to 9 p.m.—*Southport, Birkdale* (VIII). TS, with very heavy R in evening.—*Meltham, Harewood Lodge* (IX). TS and very heavy R; ·20 in. fell in 6 minutes, 10.39–10.45 a.m.—*Wakefield, Stanley Grange* (IX). Terrific TS between 11 and 11.20 a.m.—*Treherbert, Tyn-y-waun* (XI). T, L, and heavy R.

12th—14th.—*Glenaladale* (XVIII). Blowing hard, with 5·14 in. of R in the 3 days.

13th—19th.—*Ben Nevis* (XVIII). In the 7 days 11·38 in. of R fell.

19th.—*New Galloway, Glenlee* (XII). H shower at 3 p.m.

19th—25th.—*Ben Nevis Observatory* (XVIII). S daily.

20th.—*Emsworth, Redlands* (II). Distant T and L at 7 p.m.—*Ashburton, Druid House* (V). T, L, and heavy R at 3 p.m.

20th and 21st.—*Watten* (XIX). N.W. gale and floods.

20th—26th.—*Melrose, Abbey Gate* (XII). Frost daily, and S on the Eildons on 23rd.

21st.—*Rendlesham Hall* (IV). TS.—*Southport, Birkdale* (VIII). Distant L in the evening and a fine lunar rainbow.

21st—23rd.—*Keswick, The Beeches* (X). S and H, the mountains being thickly covered.

22nd.—*Rendlesham Hall* (IV). L at night.—*Seathwaite Vicarage* (VIII). T, L, and very heavy H, 1·29 in.—*Unthank Hall* (X). A sharp fall of S, which soon melted.—*Ulpha Vicarage* (X). Heavy T, S, and H at 8 a.m.; R 1·05 in.—*Penty Park* (XI). H, T, and L.—*Douglas, Victoria Road* (XI). R and H at night, with N.W. gale, and T and L at 4 a.m. on 23rd.—*Glenaladale* (XVIII). S low down.—*Invershin* (XIX). R, sleet, and S on the hills.

22nd and 23rd.—*Uldale Rectory* (X). S; the top of Skiddaw white.—*Llandovery* (XI). H.

22nd—24th.—*Dalnaspidal* (XVI). S and R.—*Miltown Malbay* (XX). H.

23rd.—*Broxbourne* (III). H, R, and S.—*Bloxham Grove* (III). H.—*Further Barton* (VI). Precipitation ·11 in., chiefly H.—*Hoar Cross* (VI. H storm.—*Handsworth* (VI.) TS.—*Hemingby* (VII). Gale, with T, R, and S.—*Chelford, Astle Hall* (VIII). TS, with heavy R.—*Meltham, Harewood Lodge* (IX). H and T.—*East Layton Hall* (IX). Quite a snowstorm, S 1 inch deep. Cross Fell and the western hills white.—*Darlington, Brinkburn* (X). S, yielding ·25 in.—*Whorlton Green* (X.) S or R all day.—*Staindrop, Raby Castle* (X). S, yielding ·23 in.—*Melmerby* (X). Ground and fells white with S.—*Brampton, Denton House* (X). Fully 2 inches of S, exceptionally early for so heavy a fall.—*New Galloway, Glenlee* (XII). S on the hill tops.—*Moffat, Craigielands* (XII). Ground covered with S.—*Melrose, Abbey Gate* (XII). S on the Eildons.—*Glasgow, Queen's Park* (XIV). Sleet and S, ·23 in.

23rd.—Under date July 2nd, we mentioned that the schoolroom at *Misson, Gainsborough*, was struck and the Vicar injured. He went away to recover, and (although not well), he returned on the evening

of September 23rd to find that at 11.40 a.m. on that very day the church had been struck by L, and all except the chancel had been destroyed by fire, the church having been ignited in four different places.

26th.—*Southport, Birkdale* (VIII). The first sunless day in over four months.

27th.—*Diss* (IV). Bright L in evening.—*Denver* (IV). T and L.—*Galway, Queen's College* (XXII). L, T, and heavy squalls and showers.

27th.—In the afternoon, the fine church of *Pinchbeck, Spalding, Lincoln*, was struck by L, the weather-cock was destroyed, and the roof ignited.

28th.—*Berkhampstead, Rosebank* (III). For three weeks no R had penetrated the percolation gauges.—*Miltown Malbay* (XX). T and L, and torrents of R.

28th and 29th.—*Fallbarrow* (X). R 3·01 in. in the two days.

28th—30th.—*Sedgebrook* (III). Squally.

29th.—*Thirendale* (IX). TS.—*Whorlton Green* (X). S.W. gale with H, and a flood on the Tees. *Ulpha Vicarage* (X). T, H, and heavy showers; R 1·28 in.—*Keswick, The Beeches* (X). T, vivid L, and heavy R.—*Douglas, Victoria Road* (XI). S.W. gale.

29th and 30th.—*Glasgow, Queen's Park* (XIV). TSS and heavy R.—*Miltown Malbay* (XX). Brilliant aurora.

30th.—*Melrose, Abbey Gate* (XII). R and T at 3.30 p.m. Aurora at 9 p.m.

OCTOBER.

1st.—*Tenterden* (II). TS at noon, with H and heavy R. In nine minutes ·29 in. fell, of which ·25 in. is believed to have fallen in five minutes.

2nd.—*Harptree Court* (V). Between 0·55 p.m. and 1 p.m. ·24 in. of R fell.—*Knutsford* (VIII). TS at 1.30 p.m.—*Seathwaite Vicarage* (VIII). T, L, and H.

2nd—5th.—*Ketton Hall* (VII). T and R; H also on 4th.—*Keswick, The Beeches* (X). Much L at night, and S on the mountains on 4th.—*New Galloway, Glenlee* (XII). H daily, and T and L on 3rd and 5th.

3rd.—*Walthamstow, Forest Road* (IV). Vivid L in evening.

4th.—*Hurstpierpoint, Hampton Lodge* (II). Very heavy R and H; in 7 minutes ·20 in. fell.

5th.—*Druid House* (V). TS at 7 p.m.—*Southport, Birkdale* (VIII). TS and H from 3 to 4 a.m.—*Ulpha Vicarage* (X). TS at 7.30 to 8 a.m.

—*Edinburgh, Blacket Place* (XIII). L after 7.45 p.m.—*Colmonell* (XIV). T and L.—*Kilkenny, Lion Villa* (XXI). Heavy H storm for 20 minutes about 1.30 p.m. The H stones measured half an inch.

6th.—*Harptree Court* (V). In 14 minutes, from 3.6 to 3.20 p.m., ·26 in. of R fell.

7th.—*Wallington* (II). L.—*Alton, Ashdell* (II). TS.—*St. Albans, The Grange* (III). Violent TS, at its height from 6.35 to 6.48 p.m.; L like balls of fire (usually blue, sometimes rather red) every minute or two; T and L almost instantaneous.—*Oxford, Magdalen College Laboratory* (III). Heavy TS in afternoon.—*Banbury, Bloxham* (III). T, L, and heavy R.—*Walthamstow, Forest Road* (IV). Smart TS at 6 p.m.—*Alderbury* (V). T and L.—*Derby, Findern* (VII). TS.

8th.—*Druid House* (V). L at 9 p.m.

9th.—*Kensington, Addison Gardens* (I). Very heavy R, with L at night.—*Wallington* (II). TS.—*Forest Side Vicarage* (II). TS from 6 p.m. to 9 p.m., and heavy R 1·55 in.—*Emsworth, Redlands* (II). T, L, and 1·49 in. of R.—*Lyss, Lingwood* (II). T, L, and a deluge of R (1·85 in.), commencing about 6 p.m.—*Alton, Ashdell* (II). TS.—*Watford, Frogmore* (III). Between 6.10 p.m. and 6.55 p.m. ·73 in. of R fell, and in the day 2·51 in.—*Berkhampstead, Rosebank* (III). TS and heavy R between 8 and 8.20 p.m.—*Slough, Langley* (III). A heavy TS commenced about 6 p.m.; it rained lightly till 6.40 p.m., and after that very heavily; by 8.25 p.m. ·93 in. had fallen, and by 11.35 p.m. 2·12 in., an additional ·24 in. up to 9 a.m., making the fall for the day 2·36 in.—*Slough, Upton* (III). TS, with very heavy R, 2·26 in.—*Chalfont St. Giles* (III). Heavy R, 2·42 in., almost all in the evening and night.—*Manor Park* (IV). T, L, and R, from 6.30 p.m. to 9.15 p.m.—*Walthamstow, Forest Road* (IV). Between 7 and 8.55 p.m. ·91 in. of R fell.—*Druid House* (V). T at 6.30 a.m.; L, with showers, at 7.30 p.m.

11th and 12th.—*Dalnaspidal* (XVI). S.

13th.—*West Bromwich* (VI). In 90 minutes ·40 in. of R fell.—*Broadford, Hurdlestown* (XX). S.E. gale, with R nearly all day.—*Lawderdale* (XXII). Gale from S.

17th.—*Bishops Cannings* (V). T, wind and H; R 1·24 in.

22nd—24th.—*Fethard, Mobarnane* (XX). Frost, and ice thick enough to bear.

24th and 25th.—*Whorlton Green* (X). W. gale.

24th—26th.—*Douglas, Victoria Road* (XI). S.W. gale, with H storm at 5 p.m. on the 26th.

25th.—*Ennis* (XX). Heavy showers and H.

25th and 26th.—*Uldale* (X). Heavy R and H showers.

25th—31st.—*Dalnaspidal* (XVI). R and S daily, except the 27th, when no S fell.

26th.—*Seathwaite Vicarage* (VIII). T, L, and H.—*Ulpha Vicarage* (X). Very stormy, with H and T.—*Keswick, The Beeches* (X). Heavy H and S squalls till 7 a.m. TS at 2.5 to 2.20 p.m.—*Melmerby* (X). H and R.—*Melrose, Abbey Gate* (XII). T, L, and R. Hills white with S.—*Glenaladale* (XVIII). S on hills.—*Watten* (XIX). N.W. gale and driving R.

27th.—*Nottingham, Beeston Fields* (VII). Ripe raspberries gathered.

26th and 27th.—*Invershin* (XIX). S on hills.

27th—29th.—*Drumnadrochit* (XVIII). S on the hills and down to 100 ft. above sea on 29th.

29th—31st.—*Carrablagh* (XXIII). H; S on the mountains on the 31st.

30th.—*Oxford, St. Giles* (III). The first frost since April 13th.—*Rendlesham Hall* (IV). Sharp frost and H storms.—*Watten* (XIX). R, H, and S.

30th and 31st.—*Knutsford* (VIII). Sharp frost.—*Ulpha Vicarage* (X). Severe frosts.

31st.—*Bishop's Hill* (IV). First frost, with ice, in the morning.—*Bishops Cannings* (V). Cutting frost.—*Further Barton* (VI). S.—*Ross, The Graig* (VI). Severe frost, killing all tender plants.—*Hemingby* (VII). R and S in night.—*Corwen, Rhug* (XI). S, yielding ·10 in.—*Drumnadrochit* (XVIII). Very strong gale.—*Invershin* (XIX). Hard frost.—*Lawderdale* (XXII). Gale from W.

NOVEMBER

1st.—*Knutsford* (VIII). R and H at 4.30 p.m.—*Melrose, Abbey Gate* (XII). Lunar rainbow at 7.30 p.m. and aurora borealis at 9.30 p.m.—*Edinburgh, Blacket Place* (XIII). Aurora at 7.30 p.m.

3rd—7th.—*Logie Coldstone Manse* (XVII). S daily.

5th.—*Gorebridge, Middleton* (XIII). S.

7th.—*Berkhampstead, Rosebank* (III). Seven hours of bright sunshine.

14th.—*Lyss, Lingwood* (II). Thick fog in morning.—*Cheltenham* (VI). First ice on lake.

15th.—*Further Barton* (VI). A well, 100 feet deep reached its lowest, when there was only 6 inches of water left.

15th—18th.—*Helensburgh* (XV). High wind culminating in a hurricane on the 17th and 18th.

16th.—*Kilmany, Mountquhanie House* (XVI). The greatest gale ever known in Scotland, far exceeding the Tay Bridge gale of 1879 in the amount of damage done to woods, stacks, and steadings.—*Broadford, Hurdlestown* (XX). S.S.E. gale all day.

16th and 17th.—*Diss* (IV). Gales from E. and S.E.

16th—18th.—*Cork, Clarence Place* (XX). Severe cyclone; the wind blowing at first from E., and after a calm interval (*i.e.*, as the centre passed) changing to W. with greater force.

17th.—*Edinburgh, Blacket Place* (XIII.) N.N.E. gale with low bar. —*Doune, Gartincaber* (XVI). Gale from the N., being the most violent of which there is any record or tradition in this district.—*Coupar Augus Station* (XVI). Dreadful hurricane; the destruction of property along its path unprecedented.—*Lochmaddy* (XVIII). The worst gale experienced in eleven years.—*Drumnadrochit* (XVIII). Fierce N.E. gale, blowing down much valuable timber—*Invershin* (XIX). Hurricane.—*Killarney* (XX). TS.—*Broadford, Hurdlestown* (XX). Severe N.W. gale at night with S.—*Ballymena* (XXIII). Exceptionally severe N.E. gale.—*Carrablagh* (XXIII). A fierce storm began in S.W., working round to N. in the afternoon, whence it raged a furious tempest all night, with H, S and sleet.

17th and 18th.—*Fordingbridge, Wood Green* (II). Terrible gale with S and R, but not much damage.—*Stowell Rectory* (V). Gale, with sleet on the 18th.—*Ross, The Graig* (VI). Severe N. gale with R and S; some tiles and chimneys blown down, but few trees uprooted. *Llanvihangel Court* (XI). Heavy gale from S.W., veering to N. and N.E.—*Douglas, Victoria Road* (XI). Terrific N. and N.N.W. gales, with S.—*Callander, Leny* (XVI). Terrific gale, causing the greatest destruction of woods since 1703, the area extended from the Forth to the Shetland Islands; damage estimated at two millions.—*Stronvar* (XVI). Gales with S and R.—*Coupar Angus* (XVI). An unprecedented hurricane from N.E., laying down forests of wood like grain and destroying much property.—*Watten* (XIX). The most severe gale for many years.—*Coolkelure* (XX). Violent N. to N.E. gale with little R.—*Galway, Queen's College* (XXII). Heavy squalls.

17th—22nd.—*Logie Coldstone Manse* (XVII). S daily.

18th.—*Kensington, Edith Road* (I). Violent gale from N.W., with

S towards night.—*Muswell Hill* (I). S yielding ·27 in.—*Finchley, Etchingham Park* (I). S yielding ·20 in.; remaining on the ground in places till 22nd.—*Haslemere, Hazelhurst* (II). Northerly gale, with heavy S and deep drifts.—*Sheppey, Leysdown* (II). N.E. gale.—*Alresford House* (II). A severe gale, with S and R.—*Emsworth, Redlands* (II). N.W. gale with S for 12 hours; drifts 4 to 5 feet deep. The S lay for a week.—*Lyss, Lingwood* (II). Blizzard, with snow drifts.—*Kensworth, The Grove* (III). Gale with S.—*Oxford, Magdalen College Laboratory* (III). Great gale in afternoon and night with S and R.—*Oxford, St. Giles* (III). Gale with S.—*Banbury, Bloxham Grove* (III). N.E. to N.W. gale, and driving S all day.—*Northampton, Sedgebrook* (III). R and S all day, and a terrible evening with blinding S and ice.—*Ely, Stretham Ferry* (III). Very rough with S, which drifted so that it was impossible for the mail cart to run through.—*Walthamstow, Forest Road* (IV). Severe N. gale and perfect blizzard of S in afternoon and evening.—*Alderbury* (V). S on the ground.—*Tavistock, West Street* (V). Severe gale with S.—*St. John's* [*Devonport*] (V). E.N.E. gale causing much damage.—*Wells* (V). S and sleet.—*Hampnett Rectory* (VI). Blizzard in the afternoon. A strong woman starting from Northleach (1 mile distant) at 5 o'clock succumbed when about ¾ mile from Hampnett, and was found dead. —*Cheltenham, Southam Villa* (VI). A fearful storm with S.—*Coventry, Coundon* (VI). Heavy fall of S, much drifted.—*Nottingham, Beeston Fields* (VII). The first S of the season, deep drifts.—*Ketton Hall* (VII). Gale with S after 4 p.m.—*Hemingby* (VII). Hurricane with R all day and S at night.—*Chelford, Astle Hall* (VIII). S most of the afternoon, with a high N.W. gale.—*Sowerby Bridge, Haugh End* (IX). Violent gale.—*Baldersby* (IX). Severe gale from the N. with S, lasting nearly 24 hours, and doing considerable damage to buildings and trees, &c.—*East Layton Hall* (IX). Terrific N. gale.—*Whorlton Green* (X). Strong N. gale with S.—*Sunderland* (X). Hurricane, with much S and R.—*Melmerby* (X). Stormy from N. with helm wind and S.—*Llanfrechfa Grange* (XI). Very heavy N. gale, with R and sleet, many trees blown down.—*Corwen, Rhug* (XI). Heavy S storm and S on the following two days.—*Callander, The Gart* (XVI). Disastrous gale; woods nearly all blown down.—*Broadford, Hurdlestown* (XX). S on the hills.

18th and 19th.—*Lewes, Saxonbury* (II). Heavy gale from N. with S.—*Broxbourne* (III). S.—*Steeple Aston* (III). S.—*Rendlesham* (IV). Strong N.W. to N.E. gale.—*Diss* (IV). W. gale at night with heavy R,

on 18th and all day on 19th from N. with S and H.—*Hoar Cross* (VI). S.—*Cheadle, The Heath House* (VI). S.—*Further Barton* (VI). N.W. gale with S, a true blizzard on the 18th.—*Knutsford* (VIII). S.—*Brampton, Denton House* (X). Heavy gale of wind from N., doing considerable damage; it ended with a little S.—*Keswick, The Beeches* (X). Violent N. gale with S, doing great damage.—*Llandovery* (XI). Gales from S. on the former, and N. on the latter, day.—*Rhiwbryfdir* (XI). Great storm of wind and S.—*Melrose, Abbey Gate* (XII). Very severe N.W. gales with sleet and S.

18th—20th.—*Birchington, Thor* (II). Continuous heavy gale.—*Bishops Cannings* (V). N. to N.E. gales, with S on the 18th and 19th.

19th.—*Worth, South Hill* (II). S.—*Berkhampstead, Rosebank* (III). S 2 inches deep.—*Ely, Stretham* (III). Exceptionally rough, with S storms.—*Walthamstow, Forest Road* (IV). Deep S drifts, blocking roads in places, but S not more than 2 inches deep on the level.—*Blandford, Whatcombe* (V). Blizzard from N.W.—*Gorebridge, Middleton* (XIII). S.

22nd.—*Gorebridge, Middleton* (XIII). S.

22nd and 23rd.—*Diss* (IV). S.—*Hemingby* (VII). S showers.

24th.—*Ditchling* (II). A gale with R at 7.50 p.m.

26th.—*Keswick, The Beeches* (X). Strong gale from N.N.E.

28th—*Hemingby* (VII). At 11 p.m. the temp. was 50°.

29th.—*Melrose, Abbey Gate* (XII). S.W. gale.—*Edinburgh, Blacket Place* (XIII). W.S.W. gale.

30th.—*Mere Down* (V). Our well holds out, but the deep chalk springs are lower than ever remembered, and the river through the Deverells is as dry as a road, and has been so for some months.—*Douglas, Victoria Road* (XI). N.W. gale at night with S.—*Colmonell* (XIV). S showers.—*Killarney* (XX). S on the mountains.

DECEMBER.

7th.—*Pendock Rectory* (VI). Violent S.S.W. gale.—*Keswick, The Beeches* (X). S on the mountains.—*Miltown Malbay* (XX). Gale and L.

7th and 8th.—*Llandovery* (XI). T and L.—*Abergwessin* (XI). T and H.—*Douglas, Victoria Road* (XI). S.W. gale with tremendous squalls.—*Melrose, Abbey Gate* (XII). S.W. gale.

7th—14th.—*Dalnaspidal* (XVI). S daily.

8th.—*Druid House* (V). L and H.—*Ludlow, Ashford* (VI). T and L

in night.—*Pendock Rectory* (VI). T and vivid L.—*Crickhowell, Gwernvale* (XI). T and L at 10 p.m.—*New Galloway, Glenlee* (XII). L.—*Edinburgh, Blacket Place* (XIII). Heavy S.W. gale; mean wind velocity 44 miles per hour from 10 a.m. to 6 p.m.

8th and 9th.—*Keswick, The Beeches* (X). Heavy gale, with R, H and L.—*Miltown Malbay* (XX). Squally, with H showers.—*Lauderdale* (XXII). S.

8th—11th.—*Gorebridge, Middleton* (XIII). S daily.

9th.—*Druid House* (V). S on the hills.—*Penty Park* (XI). L and T.—*Galway, Queen's College* (XXII). L, T and showers of H and S.

10th.—*Chelford, Astle Hall* (VIII). Gale from S.E. with R storms.—*Ulpha Vicarage* (X). T and L.—*Whitehaven* (X). L, H and R.—*Uldale Rectory* (X). Hurricane from S.—*Brampton, Denton House* (X). Heavy gale from S. and S.E., doing much damage.—*Glenaladale* (XVIII). Much S on the hills.—*Cork, Clarence Place* (XX). In the early morning, during high water of spring tides, with a strong gale and very low bar, the wind blowing into the harbour so raised the water as to flood the lower parts of the city.

11th.—*Douglas, Victoria Road* (XI). Severe squalls from S.W. with TSS, H, S and R.—*Stronvar* (XVI). S $2\frac{1}{2}$ inches deep.

11th and 12th.—*Whorlton* (X). S.

12th.—*Kensington, Edith Road* (I). Tremendous gale, quite a hurricane from 3.30 p.m. to 6 p.m., when it suddenly dropped.—*Keston Tower* (II). Heavy S.W. gale.—*Walthamstow, Forest Road* (IV). Severe gale from S. and S.W. in afternoon, squalls violent and destructive.—*Rendlesham Hall* (IV). Heavy southerly gale.—*Bishops Cannings* (V). Great gale from S.S.W.—*Binnegar Hall* (V). Violent gale between 11.30 a.m. and 3 p.m., doing great damage to trees and buildings.—*Druid House* (V). TS, with torrents of R at 1 a.m.—*Tavistock, West Street* (V). T, L and H in the night.—*St. John's, [Devonport]* (V). Heavy S.W. gale, with T and heavy R.—*New Galloway, Glenlee* (XII). S $1\frac{1}{2}$ inches deep.—*Miltown Malbay* (XX). Stormy, with S, H and R.

12th and 13th.—*Birchington, Thor* (II). Strong S.W. gale.—*Diss* (IV). Heavy gale from S.—*Blandford, Whatcomb* (V). Destructive S.W. gale.—*Llandovery* (XI). Gales, from N. on the former, and S. on the latter day.

13th.—*West Bromwich* (VI). In 30 minutes ·20 in. of R fell.—*Melrose, Abbey Gate* (XII). S $1\frac{3}{4}$ inches deep.

18th.—*Keswick, The Beeches* (X). S on the mountains.

19th.—*St. John's*, [*Devonport*] (V). S.W. gale and 1·27 in. of R.—*Douglas, Victoria Road* (XI). Furious S.W. gale.

20th.—*Chelford, Astle Hall* (VIII). Heavy S storm.—*Lough Sheelin, Arley* (XXIII). S.

21st.—*Broadford, Hurdlestown* (XX). Hills white with S.

24th.—*Drum Park* (XII). In 12 hours 2·00 in. of R fell.

25th.—*Wath-upon-Dearne, Chapel Street* (IX). TS.—*Holmbridge, Yateholm* (IX). Much T and L.—*Meltham, Harewood Lodge* (IX). TS.—*Batley, Staincliffe Reservoir* (IX). A considerable amount of L, but not much T.

30th and 31st.—*Birchington, Thor* (II). Very cold fog.—*Oxford, Magdalen College* (III). Very foggy.—*Ross, The Graig* (VI). Dense fog.

OBSERVERS' NOTES ON THE MONTHS.

JANUARY.

I. *Finchley, Etchingham Park.* R about 21 per cent. less than the average, though the number of rainy days was large.

II. *Haslemere, Hazelhurst.* Very cold early, with skating on most days to the 17th. Freezing R on 8th, 9th, and 14th.—*Wallington.* Very cold, cloudy, sunless, and rather wet; the frost penetrated the ground to an unusual depth. R ·29 in. less than the average of five years.—*Hythe.* The first three weeks were very severe, the remainder wet and mild.—*Keston Tower.* The hard frost, which began two days before Christmas, continued till the 9th of January, and with intervals of thaw till the 18th; the remainder was mild, with westerly winds.—*Sheppey, Leysdown.* January opened with severe weather, S drifts being from 1 to 2 feet deep on the 1st and 2nd; milder towards the close, with some quite warm days.—*Maidenhead, Castle Hill House.* The first week cold, the latter half rather mild; S on the 3rd, 6th, and 16th.

III. *Broxbourne.* S fell on 8 of the first 17 days.—*Throcking Rectory.* Temp. and R above the average. Duration of sunshine about 31 hours, 16 days being sunless.—*Bloxham Grove.* Severe frost till the 8th; then, with the exception of the 10th, 11th, and 15th, which were fine and clear, fog prevailed till the 17th, when there was a heavy fall of S. From the 23rd the temp. was higher than usual, the max. temp. on 30th being 50°.

IV. *Walthamstow, Forest Road.* Temp. uniformly low, and severe frost at the beginning. R slightly less than the average.—*Sudbury, Friars Street.* Very cold at the commencement, with S, but milder at the end.—*Ipswich, Bishop's Hill.* R ·57 in. above the average. S and hard frosts during the first half; mild, with showers of R, in the second half.—*Rendlesham Hall.* Very cold, with heavy falls of S and sharp frosts in the early part; frost on 17 days.—*Diss.* The first half was bitterly cold (the temp. falling to 7° on the 3rd), with excellent skating to the 15th. Much S fell, but there was no

drifting, thanks to the great stillness of the air. The latter half was much warmer, with changeable weather and a good deal of R. The total downfall was the greatest in January for 24 years.

V. *Bishops Cannings.* R ·03 in. above the average.—*South Molton, Rose Ash.* Cold and dull.

VI. *Clifton, Pembroke Road.* R 1·05 in. below the average of 37 years.—*Further Barton.* The severe frost of December continued till Jan. 8th, and was succeeded by a very slow thaw, night frosts constantly recurring. After the 15th the temp. rose, and the weather was more changeable. There were two periods of five days each without R.—*Cheltenham.* S fell on 9 days out of the first 16.—*Cheltenham, Naunton Park Villas.* Dry and cold till the 18th, before which date the temp. did not reach 40°.—*Ross, The Graig.* Very severe frost during the first half, with nearly a foot of S in the week ending 14th, which lasted on the ground till the 21st. The river Wye was frozen over in many places, and when the frost broke up the ice blocks were six to eight inches thick. The latter part much warmer, and the last week wet.

VII. *Ketton Hall.* Changeable, with very little sunshine; R ·48 in. below the average. Very severe frost on the 4th and 5th; bright nine days; W. wind on 21 days.—*Hodsock Priory.* The first week was very cold, after which it turned rather milder, but the thaw was slow, and the frost was not out of the ground until the 22nd. The rest of the month was very mild. S on the ground for the first 12 days.

VIII. *Chelford, Astle Hall.* Very cold; severe frost till the 17th, then mild to the end.—*Southport, Birkdale.* R less than one third of the average, although there were frequent light showers. Temp. continuously below the average till the 17th, and afterwards almost as continuously above. Severe frost and light S prevailed during the first week. The mean daily range of temp. was less than in any previous January in 21 years. Max. thickness of ice $7\frac{1}{4}$ inches on 5th and 6th on large lake.—*Seathwaite Vicarage.* The downfall was below the average, and nearly all confined to the latter half, which was as mild as the early portion was severe, the streams having been more frozen than for many years.

IX. *Harrogate.* Intensely cold during the first week, with a fall of 5 inches of S. Temp. a little higher in the second week, with paucity of sunshine. The second half much milder; by the 22nd all traces of winter had gone, and did not return. R 1·30 in. below

the average of 10 years.—*East Layton.* Very hard weather during the first half, but about the 18th a change set in, and continued till the end.

X. *Ulpha Vicarage.* Fine generally, with little S and a fair amount of sunshine. Mild from the 18th, with no frost, except occasionally on the ground.—*Rosthwaite.* Continuous hard frost and almost total absence of S. Complete thaw from the 18th.—*Keswick, The Beeches.*—Severe frost prevailed from the 1st to the 8th, and less severe to the 16th, when a thaw took place. The latter half was mild and showery.

XI. *Llanfrechfa Grange.* Continuous sharp frost till the 11th, and some good skating, which is rare here. Very mild from the 18th.—*Llanvihangel Court.* The first half was very cold and calm; the second half was very warm, the wind backing, but not stormy, except for short squally periods. A fair amount of bright sunny weather.

XII. *Melrose, Abbey Gate.* R 1·07 in. below, or little more than half, the average.

XIII. *Gorebridge, Middleton.* S fell on 9 of the first 15 days.—*Edinburgh, Blacket Place.* The first 15 days were very cold, after which the temp. did not fall below 32°. Precipitation very small, though it fell on 22 days.

XV. *Inverary, Newtown.* Keen frost during the first half, and very mild and showery during the latter half, of the month.

XVI. *Coupar Angus.* Very low temp. during the first two weeks, making the mean for the month 1°·4 below the average. S fell on 17 days, but in very limited quantities, the total being 1·12 in. below the average of 12 years.

XVIII. *Glenaladale.* Fine winter weather during the first half—cold, bright, and calm. The second half much milder—wet, and a few stormy days.—*Loch Maddy.* The only notable feature was—taking the month as a whole—the comparatively light winds and the very frequent changes of direction.

XIX. *Watten H.R.S.* Hard frosts in the first half; frequent storms later.

XX. *Dunmanway, Coolkelure.* Very mild; no frosts, but high and stormy winds, mostly from W. and S.W.—*Cork, Clarence Place.* R ·54 in. above the average. January is not only the coldest, but in Cork the wettest, month of the year, and the present month exceeded the average in both particulars.—*Nenagh, Castle Lough.* Cold

in the early, and mild and rainy in the latter, part of the month.—*Broadford, Hurdlestown.* Very favourable on the whole. R ·98 in. below, and rainy days one above, the average of 8 years.

XXI. *Kilkenny, Lion Villa.* January commenced with severe frost, but a thaw set in on the 4th, followed by cold, damp, overcast and stormy weather, with some S, till 17th, when ten days of lovely mild weather intervened, and the month closed fine but stormy.

XXII. *Tuam, Gardenfield.* R 1·16 in. less than the average of 10 years. Severe frost occurred on the first four days; it was fine from 5th to 8th, and the remainder was changeable.

XXIII. *Carrablagh.* Frost on the first three nights, and none after. During the last half the mean temp. was 44°, with very little wind. A lovely season, and garden flowers were remarkably early.

FEBRUARY.

I. *Kensington, Addison Gardens.* The mildest February since 1885.—*Muswell Hill.* R 58 per cent above the average of 21 years, and greater than that of any February since 1885; 22 rainy days.—*Finchley, Etchingham Park.* Very wet, the R being larger than that of any February since the gauge was started in 1886. Two-thirds of the total fell in the latter half, though in each half there were 11 rainy days.

*II. *Haslemere, Hazelhurst.* A wet month; ground soaked.—*Abinger Hall.* Mild and very changeable throughout.—*Wallington.* The month will be remembered as having the lowest mean bar., and being the warmest and wettest for many years. R more than thrice the average.—*Hythe.* Very wet, unsettled and stormy.—*Tunbridge Wells, Camden Park.* Mild, with the heaviest R in February since observations commenced in 1884, the total being two and a half times the average.—*Birchington, Thor.* Wet and sloppy from beginning to end. S. and S.W. winds prevailed. Frost in shade on only two nights.—*Sheppey, Leysdown.* Generally mild and wet, with two or three balmy days and much stormy weather.—*Lewes, Saxonbury.* One of the wettest Februaries known.—*Emsworth, Redlands.* Rough, mild and wet. R 1 87 in. above, or nearly twice, the average of ten years,

III. *St. Albans, The Grange.* Very wet, only 5 days without R.—*Throcking Rectory.* Temp. and R above the average. Sunshine 52 hours, 7 days being sunless.—*Slough, Upton.* Wet and blustering, only three days without R or S.—*Bloxham Grove.* Gloomy and wet;

* See also *Met. Mag.*, March, 1893, p. 17.

R fell on 21 days, and only from the 5th to 8th was it clear and pleasant. The 17th was fine and genial, only to be followed by fog, R and S. Frosts were neither frequent nor severe, and the temp. was somewhat higher than usual.

IV. *Ipswich, Bishops Hill.* Very unsettled and variable, R 1·11 in. more than, or nearly twice, the average.—*Woodbridge, The Cedars.* Excessive wet and floods.—*Rendlesham Hall.* Very wet, changeable and windy.—*Diss.* A wettish month, with some brilliant days in the first half. S fell on the 22nd, but there was little severe frost throughout.—*Denver.* Very dry till the last week. Cold at the end of the first and during the last weeks, warm in the second week, and especially so on the 19th.

V. *Bishops Cannings.* Very changeable as regards the temp. R 2·25 in., and rainy days 10, above the average.—*Stowell Rectory.* The wettest February since 1883, with mean temp. 2°·7 above the average.

VI. *Clifton, Pembroke Road.* The wettest February since 1876. R double the average of 37 years.—*Ross, The Graig.* R nearly one-third above the average, only 5 rainless days; great absence of severe frost, and no S to lie on the ground. Temp above 50° on 11 days.

VII. *Ketton Hall.* Very changeable, with only 7 bright days. R ·38 in. above the average. Wind W. on 19 days.—*Hodsock Priory.* Mild, wet and stormy with low bar. and average sunshine. We have to go back to 1885 for a warmer February, and to 1883 for a wetter one.

VIII. *Bolton, The Park.* R about double the average, falling on 23 days.—*Southport, Birkdale.* Mild and open to the 21st; much colder in the last week, with S at times. Rainy days numerous, and R 1·50 in. above average.—*Seathwaite Vicarage.* Unusually mild and exceptionally wet, R or S falling on 24 days.

IX. *Harrogate.* During the first week the temp. was low; in the second and third weeks it was high, and the weather was spring-like. R excessive, being more than double the average of 10 years. High winds were frequent, but there was almost a total immunity from fog.—*East Layton Hall.* Very changeable; stormy winds; heavy showers; some sharp frosts and heavy falls of S.

X. *Ulpha Vicarage.* The wettest February in 5 years, and temp. generally rather low.—*Keswick, The Beeches.* Fairly fine till the 6th, from that date to the end, wet and stormy, particularly on the 9th, 13th and 26th. The R was nearly double the total combined fall of the three preceding Februaries.—*Uldale Rectory.* Very wet and

stormy, with scarcity of sunshine.—*Burgh-by-Sands Vicarage.* Very mild and very favourable for all agricultural operations.

XI. *Llanfrechfa Grange.* Unusually wet, only 6 rainless days.—*Douglas, Victoria Road.* The wettest and stormiest February since 1881. R fell on 22 days, accompanied for the most part by strong winds and gales.

XVI. *Coupar Angus.* R and number of wet days both above the average, but no floods occurred.

XVIII. *Loch Maddy.* The first half was colder than usual. A very heavy S storm occurred from 24th to 26th, with much drifting. —*Drumnadrochit.* R the greatest in eight Februaries, and more than double the average.

XIX. *Scourie.* The month in general was fine. Frost prevailed with occasional S. R considerably below the average.—*Watten.* Very variable, the first week fine, then stormy, followed by fogs, and the last week stormy.

XX. *Dunmanway, Coolkelure.* Exceedingly wet and stormy; frequent gales and temp. very high.—*Cork, Clarence Place.* More remarkable for the number of days on which R fell (26) than for the total fall. There were 33 consecutive rainy days, ending on the 24th. S fell on 4 days to the total depth of 6 inches, but did not remain long on the ground. Temp. almost normal, but the latter half was 5° colder than the former.—*Broadford, Hurdlestown.* Very wet, the R being 1·21 in., or nearly 70 per cent., and the number of rainy days 8, above the average of 8 years.—*Miltown Malbay.* With only 4 days dry, and the remainder giving 5·17 in. of R, this month kept up its character of "fill dyke." The middle was boisterous, squally and uncomfortably cold.

XXI. *Currygrane House.* Very severe, with great falls of S and R, and some frost.

XXII. *Tuam, Gardenfield.* R 1·33 in. above the average. 1½ inches of S fell on 26th, and severe frost prevailed from 24th to 28th inclusive.—*Ballinamore, Lawderdale.* Very wet and unseasonable.

XXIII. *Belfast, Springfield.* Variable throughout, R, H, S, sleet and frost. Mild at the close.

MARCH.*

I. *Kensington, Addison Gardens.* The warmest March since 1884, with 22 cloudless, or almost cloudless, days. —*Kensington, Edith Road.*

* See also *Met. Mag.*, April, 1893, p. 36, and July, 1893, p. 83.

Exceptionally dry, settled, and warm.—*Muswell Hill.* R 79 per cent. less than the average of the previous 21 years, during which time no March had so small a R. Partial drought of 30 days from 2nd to 31st.—*Finchley, Etchingham Park.* Extraordinarily dry, R about one-fifth of the average, falling on only 7 days, the result being a partial drought of 30 days with ·21 in. of R.

II. *Wallington.* A splendid month and everything looking well ; R 1·78 in. less than, or little more than one-fifth of, the average.—*Tenterden.* R only ·52 in., the least in 30 years, the nearest approach to it being ·69 in. in 1880.—*Keston Tower.* Bright sunshiny weather nearly the whole month, with occasional frosty nights, more like May or June. Vegetation nearly a month earlier than last year. Very little R. *Hailsham.* Bright sun and cloudless sky, with almost constant E. wind. Sharp early morning frosts.—*Emsworth, Redlands.* R 1·59 in. below, or less than one-sixth of, the average of 9 years.—*Alton, Ashdell.* A great deal of sunshine throughout.—*Maidenhead, Castle Hill House.* Rather cold, with cold showers and H in the middle. No R from 17th to 31st inclusive.

III. *St. Albans, The Grange.* Very bright and dry, R on only 6 days.—*Broxbourne.* Cloudless days and frosty nights nearly the whole of the month.—*Throcking Rectory.* Temp. much above and R much below the average. An absolute drought of 28 days commenced on the 17th, and a partial drought of 78 days from the last day of February. Sunshine 181 hours, only one day being sunless. —*Oxford, St. Giles.* Very fine, dry, and unusually warm. Thorns in leaf by the end, and spring flowers in full bloom. No cloud observed in the seven days ending 25th.—*Bloxham Grove,* Remarkably calm, fine, and brilliant weather prevailed almost daily with the exception of the first three days, and the 15th, 16th, and 17th, which were stormy and very cold. There were several severe frosts, and up to the 10th the mornings were cold, but during the remainder of each day the cold was tempered by the bright sunshine.—*Sedgebrook.* The first 10 days were rather rough, but the remainder was exceptionally fine. R 1·69 in. below, or one-twenty-fourth of, the average.

IV. *Manor Park.* There was sunshine on each day, and on several occasions the sky was cloudless.—*Walthamstow, Forest Road.* A beautiful month with high temp. towards the close and great dryness of the air. R much below the average.—*Sudbury, Friars Street.* Very fine and unusually warm, but the nights were cold, especially towards the end.—*Ipswich Bishops Hill.* R just one-seventh of the average.

The driest March in 22 years, and sunny and calm, with little wind for March. Great variations of temp., warm days and cold nights, exceptionally cold for four days from the 17th, with slight S showers. —*Woodbridge, The Cedars.* Warm and sunny with partial drought. The driest March it is said, since 1868.—*Rendlesham Hall.* Very fine, dry and sunny, with sharp frosts after the 19th.—*Diss.* The month set in in true lion fashion with R, T and a heavy gale on the 1st, but the thirty following days were exquisitely fine. On the 17th and 18th a few flakes of S fell, but in general the temp. (and particularly that of the last week) was like that of early summer, rising to 63° in the shade at midday on several occasions. Primroses and violets are becoming plentiful, and the spring is an early one.—*Denver.* Very dry and warm in the day, though often cold at night. The max. temp. several times exceeded any previously recorded in 29 years. Hawthorn hedges quite green at the close.

V. *Bishops Cannings.* Wonderfully fine and warm, with continuous sunshine from the 18th.—*Stowell Rectory.* Very warm, the mean shade temp. (45°·9) being the highest recorded in March.

VI. *Clifton, Pembroke Road.* The driest, finest and warmest March in 38 years.—*Further Barton.* Remarkable for drought and much sunshine, some days being cloudless. Not a drop of R during the last fortnight. Vegetation forward from pure sun heat, in spite of night frosts.—*Cheltenham, Naunton Park Villas.* Very dry, with brilliant warm sunny days and cold nights.—*Ross, The Graig.* The R is by far the least recorded here in March, and the least in Herefordshire since 1818, except 1840. The amount of cloud (3·7) also is very small. The average max. temp. is 4°·8 above the previous highest, while the average min. is only slightly above the average.—*Bedworth Cemetery.* Remarkable for the absence of R and the forward state of vegetation in spite of severe frosts on 24 nights.

VII. *Ketton Hall.* R 1·21 in. below, or only one-sixth of, the average. The last 14 days were quite dry, and there were 7 consecutive days with not a cloud seen.—*Hodsock Priory.* Very bright and dry, with very warm days, but a good many frosty nights. The average daily max. was considerably higher, and the daily range larger, than in any of the last 17 years, but the mean temp. was a little higher in 1882. The R was less than in any March during this period, the last 14 days being rainless. The sunshine was the most in any March or April since the record began in 1881, and more than the average amount for June, July,

or August.—*Willington.* A remarkable month; cold nights; warm days; bright sunshine; very calm; little R.

VIII. *Chelford, Astle Hall.* Very warm and dry with only ·56 in. of R; some days as hot as an ordinary summer day.—*Bolton, The Park.* Remarkable for high bar. pressure; high mean temp. and great daily range; for great amount of sunshine, small R and prevalence of calms or light breezes. Absolute drought prevailed after the 17th.—*Southport, Birkdale.* Remarkably warm, dry and sunny, mean temp. 4° above the average, and great prevalence of brown sky-haze from 19th to 31st. R more than an inch below the average. Amount of sunshine the greatest registered in March.

IX. *Harrogate.* Remarkable for the small R; abundant sunshine (185 hours being recorded) and high day temp., while the majority of the nights were frosty.—*Thixendale.* Almost entire absence of cloud and wind; R on only 6 days, and absolute drought from the 17th.—*East Layton.* Quite a phenomenal month. The north of England seemed to have sent its clouds and cold winds nearer to the North Pole, and to have imported the sunshine and balmy breezes of the Riviera, with the result that vegetation was at least three weeks earlier than usual. Frost on eleven nights.

X. *Whorlton.* Very dry and fine, but generally cold at night.—*Keswick, The Beeches.* Dull but fairly mild during the first 9 days; from thence to the end, with the exception of the 15th and 16th, very fine, the last 10 days being almost cloudless, with summerlike temp., the max. exceeding 60° on 9 days.—*Uldale Rectory.* The weather was for the most part brilliant; the usual March winds being conspicuous by their absence. Calm and sunshine all day during a great portion of the month.—*Burgh-by-Sands Vicarage.* Very fine with brilliant sunshine, more like June than March.

XI. *Llanvihangel Court.* Remarkably fine and dry, with an exceptional amount of sunshine—day after day without a cloud. Many sharp night frosts.—*Douglas, Victoria Road.* Very dry, the R being almost identical with that of March, 1892, which was the least on record. The first half was cold and somewhat stormy, with S and H from 15th to 17th, afterwards it was brilliant, fine and calm, with a marked absence of E. wind.

XII. *Melrose, Abbey Gate.* The finest March for many years. R 1·66 in. below, and mean temp. 3°·9 above, the average.

XVIII. *Glenaladale.* Very fine, the first half boisterous and stormy, the second half exceptionally beautiful.—*Drumnadrochit.* R less than

half the average of 7 years. Mild and sunny from the 20th to the end.

XIX. *Scourie.* Extremely fine, with bright sunshine and gentle airs. —*Watten H.R.S.* Gales, hard frosts, R and S during the first half ; the last fortnight unusually mild, calm, and fine.

XX. *Dunmanway, Coolkelure.* Neither high winds, frost nor cold. The finest and driest March remembered in these parts, and a Godsend to the farmers. —*Cork, Clarence Place.* Remarkably dry ; the R being less than that of any March in the previous 20 years.— *Nenagh, Castle Lough.* Quite a phenomenal month, with remarkable absence of the equinoctial and other gales. Towards the end it was quite warm and butterflies of many sorts were to be seen every day. —*Broadford, Hurdlestown.* Remarkably fine and the driest on record, the R being only just over a quarter of the average of eight years. The weather was more like what one expects in July than in March.

XXI. *Kilkenny, Lion Villa.* Extraordinarily fine, save for four days ending the 18th, during which it was cold, wet and stormy. Occasional frosts, but spring weather generally.—*Currygrane House.* The latter part very dry and warm.

XXII. *Tuam, Gardenfield.* Very dry ; R 2·30 in. less than the average ; fine from 4th to 14th, and from 16th to 30th.

XXIII. *Belfast, Springfield.* Variable till the 14th ; from 8.30 to 10.30 a.m. on the 17th S and sleet showers, the bitterest of the season. From this time till the last day, lovely sunny weather, thirteen days in succession without R.

APRIL.*

I. *Kensington, Addison Gardens.* A remarkable succession of cloudless or almost cloudless days. Slight TS on 20th.—*Kensington, Edith Road.* Very warm and bright, and almost rainless.—*Muswell Hill.* The total R (·04 in.) which fell on two days, is nearly 98 per cent. less than the average of 21 years, and is less than the total of any month, excepting February, 1891, when no R was recorded, since the gauge was started in 1872.—*Finchley, Etchingham Park.* R ·15 in. ; about one-twelfth of the average, and the smallest amount in any month, except February, 1891, since the record commenced in 1886.

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* See also *Met. Mag.* July, 1893, p. 84.

Partial drought continued through March and April, ·52 in. of R having fallen in the 61 days.

II. *Haslemere, Hazelhurst.* Dry and sunny; flowers good and a month early. Plenty of water still in wells. Some sharp frosts.—*Dorking, Abinger Hall.* Dry all through, the small quantity of R (·10 in.) all falling at night. Pastures had the appearance of a very dry summer instead of spring—*Wallington.* One of the warmest and driest Aprils for many years, and most favourable for farming, though towards the end the want of R became manifest. R 1·80 in. below, or little more than one-twentieth of, the average.—*Hythe.* The driest April since the record commenced in 1865. Splendid weather during the drought, which set in on March 17th, and continued, with the exception of ·01 in. on 13th, to the end of this month.—*Ashford, Beavor Green.* R only ·02 in., falling on 16th.—*Maidstone, Detling.* The only R was ·02 in. on 16th.—*Sevenoaks, Purleigh.* Total R only ·01 in. on 16th, and only ·23 in. fell in March after the 1st.—*Keston Tower.* The drought which prevailed in March continued, with hardly any interruption, the whole of April, with bright sunshiny days, temp. above the average, and very little frost. Vegetation about a month in advance of ordinary years.—*Birchington, Thor.* Fine for the greater part, with N. and N.E. winds, and warm during the day, but cold at night. No R from March 17th to the end of the month.—*Hailsham.* Almost rainless, with cloudless sky, baking sun, cold nights, and N.E. winds.—*Lewes, Iford.* Thirty days of brilliant sunshine, with scarcely a cloud, and only ·06 in. of R in the early morning of 17th.—*Lewes, Saxonbury.* Brilliant sunshine. Drought since March 2nd.—*Haywards Heath.* No R.—*Osborne, Newbarn Cottage.* The least amount of R recorded (·02 in.) in any month during the 36 years registered.—*Emsworth, Redlands.* R 1·44 in. below, or one-sixteenth of, the average of nine years.—*Lyss, Lingwood.* On 29 days there were 244 hours of bright sunshine, by Stokes' recorder, the 17th being the only sunless day.—*Hartley Wintney.* The only R was ·03 in. on 16th.—*Maidenhead, Castle Hill House.* Warm days, but cold nights. No R from 1st to 15th, and 17th to 28th, inclusive.

III. *Broxbourne.* The drought which set in on March 4th continued to the end of April, ·17 in. of R falling in the 58 days.—*St. Albans, The Grange.* Excessively bright and dry, R only on 16th (·06 in.) and 29th (·08 in.).—*Throcking Rectory.* Temp. much above, and R much below, the average. R only ·14 in. on 3 days. Sunshine 234 hours, only one day being sunless.—*Bloxham Grove.*

Remarkable for the steady continuance of fine clear weather, with a very unusual amount of bright sunshine, which, with the exception of about 5 days, prevailed throughout. Drought becoming serious.

IV. *Ipswich, Bishop's Hill.* The second consecutive month of remarkably dry, bright, and warm weather. R less than one-tenth of the average. Plum, cherry, and apple blossom profuse.—*Woodbridge, The Cedars.* In thirteen years there has not been so much sunshine and so little R in April as this year.—*Rendlesham Hall.* The driest and finest April remembered. R only ·04 in. on one day.—*Diss.* A month of magnificent, and for many consecutive days cloudless, weather. On the 20th the temp. in shade rose to 76°, and on many other days to from 68° to 75°. Only ·09 in. of R fell on three days, and considering the length of the drought, the country looked remarkably fresh and well at the close.—*Denver.*—Remarkably dry and hot, especially in the third week. Vegetation quite a month in advance of the average. Many pastures scorched, and feed for cattle very scarce. Strawberries, roses, and rhododendrons in bloom.

V. *Warminster, Rye Hill.* Hot and dry; the pasturage very forward, but stunted in growth.—*Bishops Cannings.* Very warm, and sometimes very hot, more like July or August than April. No measurable R, though drops fell on 16th and 29th.—*Stowell Rectory.* Remarkable for the great drought. Mean temp. 7°·6 above average, the max. on 20th (76°·9) being unprecedented in April.—*Bridgwater.* R only ·09 in. on 5 days.

VI. *Further Barton.* The most remarkable season known for many years. The drought continued till the end of April, the total R of the month being only ·05 in. With the exception of a cold fit from the 8th to 11th, the temp. by day was very high, and the days often cloudless.—*Cheltenham, Naunton Park Villas.* Very warm owing to hot sunshine, and R on only two days.—*Ross, The Graig.* R ·20 in., the smallest amount registered in April since 1818, and that of March and April the smallest for two consecutive months during that period. The mean max. temp. is the highest recorded since 1859, and the amount of cloud nearly as small as in March.—*Ledbury, Underdown.* Very hot and dry, with much bright sunshine. R only ·08 in. on 4 days.—*Canon Frome.* Hot days and some sharp frosts at night. Butterflies about and roses in bud. R only ·37 in. on 5 days. —*Bedworth Cemetery.* Characterised by brilliant sunshine throughout and by sharp frosts up to the 16th. The most forward spring remembered.

VII. *Ketton Hall.* Very dry; R 1·49 in. below the average, and none at all during the first 15 days. There were 24 bright days, 12 of which were clear. Temp. high, reaching 80° in the shade on the 20th. Wind in an easterly direction on 22 days.—*Bucknall.* Characterised by great drought, small amount of cloud, and several frosty nights.—*Hodsock Priory.* The warmest and driest April for at least 17 years; the daily range of temp. was exceptionally large, the day temp. being 8° above the average, while the night temp. was 2° below. The percentage of sunshine is larger than in any other month since the record commenced in 1881.—*Willington.* Very dry and cloudless, with hot days and cold nights.

VIII. *Chelford, Astle Hall.* Very hot, especially from 20th to 22nd inclusive, and everything very dry; only ·66 in. of R. E. wind from 9th to 15th.—*Frodsham, Dunsdale.* A cloudless sky day after day, during the greater part of the month.—*Bolton, The Park.* Remarkable for bright sunny days, high temp., and almost entire absence of showers; 13 days were cloudless, and the average amount of cloud was only 3·4. R about one-quarter of the average.—*Southport, Birkdale.* Mean temp. 4°·5 above, and R 1·50 in. below, the average, and the least in April during 21 years; number of rainy days only 3. Extreme range of temp. 51°, the greatest in any month in 21 years. Relative humidity at 9 a.m. the lowest in April in the same time. Duration of bright sunshine 80 hours above the average. Less ozone than in any April during 21 years. An absolute drought of 29 days' duration terminated on the 16th.—*Lancaster, Rose Bank.* The driest April for at least 32 years, the R being 1·68 in. below the average for that period.

IX. *Thixendale.* R on only 6 days.

X. *Barnard Castle, Whorlton.* Absolute drought till the 16th, afterwards unsettled, squally, and cold at night.—*Ulpha Vicarage.* No such fine April can be remembered here.—*Hassness.* Very warm until the 28th, when cold N.W. winds and showers set in.—*Uldale Rectory.* Unclouded sunshine for days together, with great heat at times. Crops never before known so forward.

XI. *Llanfrechfa Grange.* Remarkably hot and dry, with the smallest R since 1870. Heavy dews and frequent frosts at night on the lower grounds.—*Llanvihangel Court.* Extraordinarily dry, and an entire absence of strong N.E. and E. winds. The drought very trying to vegetation.—*Swansea, Sketty.* The driest April for very many years. R only ·10 in.—*Llandovery.* The driest April remem-

bered. R only ·11 in.—*Rhayader, Nantgwilt.* Very dry, the R only just in excess of that of February, 1891. The fall of March and April together amounted to only 1·56 in., the smallest measured at this station in two consecutive months.—*St. Bride's Bay.* A wonderful month, and everything very much in advance of the season. No R to speak of, and the days as a rule very bright, with warm sun, but cold N. or N.E. wind.—*Douglas, Victoria Road.* A beautiful month, with an unusual amount of bright sunshine and high temp. The drought, which (except ·03 in. on March 31st) had been absolute since March 6th, broke up with a 48 hours' R on the 16th, and an almost marvellous outbreak of vegetation followed. Cold and very strong W. and N.W. winds marked the last four days.

XII. *Melrose, Abbey Gate.* Fine and dry, and vegetation three weeks earlier than usual. R ·96 in. below, and mean temp. 5°·1 above, the average.

XIII. *Edinburgh, Blacket Place.* The greatest R in April since 1889. Temp. 3°·3 above normal.

XV. *Inverary, Newtown.* Unusually warm. The season was considered locally to be nearly a month earlier than usual.

XVI. *Coupar Angus.* Total R about an inch below, and mean temp. 4°·0 above, the average. A very favourable month for seed sowing, but R much needed at the close.

XIX. *Scourie.* Characterised by bright sunshine and little R. Haze prevailed on several days, succeeded by heat.—*Watten, H.R.S.* Generally fine, dry and mild, with bright sunshine, but some frosts.

XX. *Cork, Clarence Place.* Less than half the average R on half the average number of rainy days. The max. and mean temp. were 2° above any recorded in 10 years.—*Nenagh, Castle Lough.* No R during the first 15 days, then small amounts for seven days, followed by another dry spell to the end. Temp. all through very high.—*Broadford, Hurdlestown.* Very fine; R ·82 in., and rainy days 2, below the average of 8 years. Water very low in many places, but crops of all kinds doing well and a month in advance of 1892.—*Miltown Malbay.* Exceedingly fine, with vegetation not seen for years at this period. Springs running dry. A splendid month for agricultural and pastoral purposes.

XXI. *Kilkenny, Lion Villa.* The first half perfect spring weather with no R until the 15th. From 17th to 27th almost summer weather, and the last three days very cold.—*Currygrane.* Very dry and warm and all the crops were favourably got in.

XXII. *Tuam, Gardenfield.* Very dry; R 1·17 in. less than the average. Some days very warm. T on 19th and 21st.—*Lauderdale.* A very dry and favourable month.

XXIII. *Belfast, Springfield.* Very fine, with the sun shining the whole of the day till the 16th, from thence to the 19th more than 1·50 in. of R fell, then fine and hot till the 26th, and cooler with light R and H showers on the last three days.

MAY.*

I. *Muswell Hill.* R fell on only 7 days, and the total is 57 per cent. less than the average of 21 years. Partial drought continued for the first half of the month, an absolute drought of 26 days from April 20th being prevented by the fall of ·04 in. on 1st. The total fall of the first 5 months shows a deficiency of 40 per cent.—*Finchley, Etchingham Park.* The partial drought which prevailed through March and April continued for the first half of May, only ·27 in. of R having fallen in the 72 days ending on 15th. The total for the month was less than half the average, and there were 13 consecutive rainless days.

II. *Wallington.* An extraordinary month. The warmest and driest May recorded, the amount of blossom marvellous. R only one-fourth of the average; mean temp. 3°·8, and duration of sunshine 7 per cent., in excess of the average.—*Cranbrook.* During March, April and May only 1·53 in. of R fell; unprecedented through 28 years.—*Sheldwich Vicarage.* During March, April and May only 1·56 in. of R fell.—*Keston Tower.* The drought of March and April continued this month almost without interruption, the weather beautifully fine, and the temp. above the average. Fruit trees suffered from drought.—*Emsworth, Redlands.* R 1·21 in., below, or less than half, the average of 9 years.—*Lyss, Lingwood.* Not one day without sunshine, and the first 16 days rainless.

III. *St. Albans, The Grange.* Very warm and bright, and no R from 2nd to 14th, nor from 21st to 28th.—*Broxbourne.* A ripe strawberry gathered on the 19th, the earliest previous record being June 5th, in 1861. Cherries ripe before the end of the month, but small and flavourless.—*Throcking Rectory.* Temp. much above, and R much below, the average. Sunshine 174 hours, no day being sunless.—

* See also *Met. Mag.*, July, 1893, p. 85.

Bloxham Grove. Fine throughout, with the exception of the 6 days from 15th to 20th, when a considerable amount of R fell, which was a great help to vegetation; unfortunately the drought again set in, and the state of the crops gave great cause for apprehension.—*Sedgebrook.* Fine and bright almost throughout, with a considerable amount of sunshine.

IV. *Walthamstow, Forest Road.* Hot throughout, with very little R and a great amount of sunshine.—*Ipswich, Bishops Hill.* Fine and bright, with nice showers in the latter half. R ·39 in. less than the average. Vegetation about 3 weeks earlier than usual.—*Diss.* Perfect, as regards brilliancy and warmth, throughout, though at the end of 14 days absolute drought, the R on the 17th was most acceptable. On the 12th the ther. stood at 75° in the shade, but there were some night frosts, particularly in the last week. Vegetation but little the worse for the long drought, though in the last week old hay sold for £8 per ton.—*Denver.* Very dry; many flowers a month in advance of the usual time for blooming.

VI. *Further Barton.* The drought returned (after a few slight showers) on the 3rd, and lasted till the 15th, when a severe TS brought much needed R, followed by a showery week. Very warm on 27th and 28th, but cold after.—*Cheltenham, Naunton Park Villas.* Very warm, the temp. never fell below 32°, even on the grass.—*Ross, The Graig.* The drought, which had been practically unbroken from March 3rd (73 days) ended on the 15th, and the 6 days' R that followed much refreshed the parched ground. The last 11 days were rainless, but the heat was not so great, and with more cloud the ground did not dry up so much as before. On the whole a remarkably fine month.

VII. *Ketton Hall.* Very dry, with the exception of six days from 15th to 20th, the total R being 1·67 in. less than, or not one-third of, the average. Wind in a northerly direction on 21 days; not so hot as April.—*Hodsock Priory.* Another fine and warm month; the drought which set in in the middle of March lasted till the 17th, when only ·60 in. of R had fallen in 61 days. Mean temp. higher than in any recent year, except 1889. Corn crops looking fairly well, but the hay will be very short.

VIII. *Bolton, The Park.* Weather generally bright and genial. Mean temp. 2°·6 above, and R 1·15 in. below, the average. Bright sunshine 151 hours, 10 hours in excess of the average. All vegetation about a month in advance of previous years.—*Seathwaite Vicarage.*

Sunny and rather dry, nearly all the R falling between the 15th and 23rd. All vegetation weeks in advance of the average.

IX. *East Layton Hall.* Nearly half May was very warm and dry, pastures and lawns being much burnt up on limestone and shallow soils, but the fine R of the 17th (1·25 in.) put a better complexion on everything. The season is about three weeks earlier than 1892.

X. *Ulpha Vicarage.* Very dry. Some R fell between the 15th and 24th, but the ground at the close was unusually dry, and R much wanted. Occasional cold winds, and the temp. generally lower than in the latter half of April.—*Keswick, The Beeches.* Very fine and warm till the 15th, then showery till the 22nd, and then dry and rather cold to the end.

XI. *Douglas, Victoria Road.* The long drought was maintained till the 15th, when some relief came with copious showers of R, but although nearly one inch and a half fell during the succeeding week, it hardly penetrated the parched and scorched soil.

XII. *Melrose, Abbey Gate.* Fine and warm, the mean temp. (49°·1) being 1°·9 above the average.

XIII. *Edinburgh, Blacket Place.* The warmest May since 1848. The mean temp. for the three spring months is the highest since 1781. Frequent showers having fallen, vegetation is looking well, and is far advanced.

XVI. *Coupar Angus.* The highest temp. in May for 30 years, being 4° above the average. R fell sparingly on 13 days, the total being about an inch below the average. All crops about 3 weeks in advance of the season, but beginning to need R.

XVIII. *Glenaladale.* A most beautiful month. Vegetation a month ahead. No one remembers so fine a spring.—*Loch Maddy.* Beautifully mild, with the exception of the last four days, when there was cold N. wind. The R which fell between the 15th and 23rd was unaccompanied by wind, which is unusual.—*Loch Ness, Drumnadrochit.* Warm and pleasant, with no frosts and R below the average. Vegetation suffering from drought. Since March 1st only 3·84 in. of R has fallen.

XIX. *Watten.* Dry, cold and cloudy, with very little sunshine.

XX. *Dunmanway, Coolkelure.* Very fine and warm, with sufficient R for the growing crops, except hay. The water in streams and springs very low.—*Cork, Clarence Place.* R an inch below, and mean temp. 3° above, the average of 10 years.—*Killarney, Woodlawn.* Drought prevailed, but caused no serious injury. Gardens looking

dried up, and ferns in the woods drooping. A heavy crop of rye grass hay was saved on the 28th.—*Nenagh, Castle Lough.* Very dry and warm during the first half; then R for 9 days, which did great good, but dry warm weather again from the 23rd.—*Broadford, Hurdlestown.* Very fine, the R being 1·08 in., and number of rainy days 8, less than the average of 8 years. Water very low, all the small streams being quite dry. Doon Lake lower than it had been since 1887.—*Miltown Malbay.* Dry, with some light rains from the 14th to 25th, which served grass and tillage, but were not heavy enough to reach the springs, which were failing. Crops looking splendid, and a month in advance.

XXI. *Kilkenny, Lion Villa.* Lovely, with much intense heat. Heavy R from 18th to 21st, ·83 in. falling on 20th in 7 hours. T and L on 21st, when ·41 in. of R fell in one hour.

XXII. *Tuam, Gardenfield.* Dry; R 1·46 in. less than the average; very dry from 3rd to 16th, and from 26th to the close; the remainder changeable; sharp frost on night of 31st.

XXIII. *Belfast, Springfield.* One-fourth of the total R fell on the first two days; from thence to the 15th lovely summer weather; gentle showers from the 15th to the 23rd, then fine again to the end of the month. The R came in time to benefit all crops, and prospects are bright.

JUNE.*

I. *Kensington, Edith Road.* Very fine and bright; the fourth consecutive month with less than an inch of R.—*Muswell Hill.* R 70 per cent. less than the average of 21 years; falls exceeding ·10 in. occurring on only 2 days. The total for the four months (March to June) amounts to only 2·06 in., or not quite a quarter of the 21 years' average.—*Finchley, Etchingham Park.* Though sufficient R fell to prevent either an absolute or partial drought, yet the dry character of the season was maintained, and on only 3 days did the fall exceed ·05 in.

II. *Haslemere, Hazelhurst.* Fine and sunny; very hot from 16th to 20th; ground parched and meadows burnt brown; no hay at all; water getting scarce.—*Dorking, Abinger Hall.* Very dry and hot. Many crops are a total failure, and the seed of others still lies ungerminated in the soil.—*Wallington.* Another hot dry month, with

* See also *Met. Mag.*, July, 1893, p. 86.

rather disastrous results for agriculture. Practically no hay, and the fruit withering or falling for lack of moisture. R ·62 in. less than the average.—*Hythe.* Very fine and dry, with only a few showers, and 16 consecutive rainless days.—*Acrise.* R ·72 in. on 7 days; the smallest fall in June since the observations commenced in 1870.—*Keston Tower.* The long drought continued this month with only occasional interruptions. It was very hot between the 15th and 20th, the shade temp. rising to 84° on the 19th. Little or no hay, and most fruits likely to be failures.—*Birchington, Thor.* Very hot and dry, with N.E. winds; not enough R to do any good to the crops, which are all parched.—*Lewes, Saxonbury.* The R on the 26th and 27th was a relief after the long drought, but not enough to make any appreciable difference to the famished crops and bare pastures. The 17th, 18th, and 19th were intensely hot.—*Emsworth, Redlands.* R ·37 in. below the average of nine Junes; great heat, but no TSS nor L.—*Lyss, Lingwood.* There were 209 hours, 10 mins. burning sunshine registered by the Campbell-Stokes recorder, and there were really one or two hours a day more, bright but not burning.—*Maidenhead, Castle Hill House.* Rather hot, especially from 15th to 19th inclusive.

III. *St. Albans, The Grange.* Very warm and dry; R on only 8 days, and none from 7th to 20th.—*Broxbourne.* Total R for the four months to the end of June 2·00 in.—*Throcking Rectory.* Temp. above and R below, the average; sunshine 178 hours; 1 sunless day.—*Newport Pagnell.* R ·69 in. on 7 days; almost exactly half the average.—*Banbury, Bloxham Grove.* With the exception of about four days, remarkably fine and clear, with great heat and parching winds from N.E. on 14 days. Refreshing R fell on the 22nd and 23rd, but the effects of the drought were very serious.

IV. *Sudbury, Friars Street.* Fine, dry, and very hot at times.—*Ipswich, Bishops Hill.* R 1·58 in. less than, or only one-fourth of, the average, and chiefly from TSS.—*Woodbridge, The Cedars.* Everything burnt up.—*Diss.* Beautifully bright and warm, with welcome showers in the latter half. Hay crop very short; cereals improved; roots poor.—*Denver.* Very hot and dry, excepting the first three nights; no hay nor root crop; corn very forward.

V. *Mere Down.* Drought only partially broken, for though the showers made the country look greener, they were not sufficient to moisten the ground more than an inch or so below the surface. No R has run into the ponds since February except a little in May.—

Bishops Cannings. R ·29 in. below the average. The ground very dry and grass made no growth.—*Tavistock, Rose Villa.* The fourth dry and sunny, and the fifth warm, month in succession, with great variations of temp., but with generally a high and steady bar. Solar halos on four days and fog on two.—*South Molton, Rose Ash.* Very hot, dry, and bright.—*Temple Coombe, Stowell Rectory.* Warm; the mean temp being 3°·5 above the average. The grass was brown in many fields till the latter part of the month.

VI. *Clifton.* R 1·37 in. below, or less than half, the average.—*Cheltenham, Naunton Park Villas.* Hot dry and windy, everything parched up.—*Ross, The Graig.* The fourth month of comparative drought, for though R fell on 11 days and on two yielded about ·25 in. each, it was not enough to prevent the great heat burning up the grass, and at the close this light soil seemed as dry as powder. No similar season has occurred since 1870.—*Hoar Cross.* Exceptionally hot. The outlook for farmers becoming very serious owing to the heat and drought.

VII. *Worksop, Hodsock Priory.* Fine and dry; no R from the 7th to the 20th, but the last week showery, with a nice fall on the 26th just in time to save the roots. Corn looking well, but a very small crop of hay. R less than half the average.—*Willington.* The drought which began in March continued through this month, only ·75 in. of R falling.

VIII. *Chelford, Astle Hall.* The first half dry, and at times very hot. The dry weather broke up on the 22nd and there was R till 28th, doing great good to the pastures. TSS frequent.—*Bolton, The Park.* Remarkable for the continuance of the drought up to the end of the third week, and for high temp. R ·35 in. below, mean temp. 1°·7 above, and duration of bright sunshine 7·5 hours above, their averages. Absolute drought from 8th to 21st.—*Southport, Birkdale.* Exceptionally warm and unusually dry and sunny. Mean temp. 3°·5 above the average, and 0°·5 above the highest previous June. R little more than a third of the average, and mostly falling in the fourth week.—*Seathwaite Vicarage.* Very warm and sunny, with deficient R, during the first three weeks. Land somewhat parched.

X. *Ulpha Vicarage.* Hot and dry weather continued except for a few days at the end, when it was cold and somewhat stormy. Vegetation flourished except in high and rocky pastures, where the grass is much burnt. The early hay crops are generally good and in some places heavy. The later meadow hay will probably be very

light.—*Keswick, The Beeches.* Fine, hot and dry till the 22nd, with the exception of showers on the 4th, 5th, and 7th, thence to the 28th heavy showers. The temp. exceeded 70° every day from 7th to 21st, and rose above 80° on six days.—*Uldale Rectory.* The weather was most delightful and though the grass crop will be below the average, things have not taken much harm from the continued dry weather. —*Burgh-by-Sands Vicarage.* Though the hay crop suffered, everything else did well, the rains from the 23rd to 29th coming gently and doing very much good; only ·10 in. fell in the first 19 days.

XI. *Llanfrechfa Grange.* Very hot and dry till the latter part, the R being far less than usual. Hay crop very short.—*Llanvihangel Court.* Dry, with a great deal of hot sun. Wind mostly N.E. till the last ten days, when it was S.W. and W.—*Douglas, Victoria Road.* The very dry weather of the previous three months continued to the 21st, and nearly all the R fell in the succeeding week, which was stormy and somewhat cold.

XII. *Melrose, Abbey Gate.* Remarkably dry and warm and the river very low. No R from 7th to 21st inclusive. Max. temp. four times above 80°.

XIII. *Edinburgh, Blacket Place.* The warmest June since 1846.

XVI. *Coupar Angus.* A heat wave began on 15th, and lasted for 5 days, both the max. and mean temp. being unprecedented in 13 years. No R fell in the 15 days ending 21st, but a welcome fall of ·62 in. occurred on 22nd.

XVIII. *Glenaladale.* A beautiful month, very hot and dry.—*Loch Maddy.* Most beautiful weather.

XIX. *Scourie.* Very hot and dry; crops partly injured by the drought.—*Watten.* Mild and pleasant, but too dry.

XX. *Dunmanway, Coolkelure.* Very fine, hot, and dry. The R, which arrived at the end of the fourth week, was much wanted.— *Killarney.* Owing to the persistent drought, grass was very short and burnt up; all garden crops were hurried to maturity and wild plants flowered 3 weeks too early.—*Nenagh, Castle Lough.* The small quantity of R which fell in the first week took little effect on the parched ground and matters from an agricultural point of view looked very serious, but about the 21st a welcome change came, and a substantial amount of R fell up to the 28th. Temp. remarkably high up to the 21st.—*Broadford, Hurdlestown.* Very favourable on the whole, and crops of all kinds doing well except hay, which is very poor on the uplands. R ·14 in., and rainy days 2, above the average

of 8 years. Water very low, many wells dry, which had not been so since 1887.—*Miltown Malbay.* Although R fell on 16 days to the amount of 1·11 in., it did not suffice to keep the hot sun and parching winds from burning up all the growing herbage. The heat was oppressive except for a few days near the end, and streams and springs were nearly dry.

XXI. *Kilkenny, Lion Villa.* Another month of charming weather, though much of it was close and sultry. Torrents of R on 26th; T and L on 3rd, 8th, 10th, and 11th.

XXII. *Tuam, Gardenfield.* Mostly fine and part very warm, the 18th being the hottest day of the year, the temp. being the highest recorded since 1887. T and L on 8th, 9th, and 14th; R ·30 in. less than the average.—*Lawderdale.* A very good seasonable month.

XXIII. *Belfast, Springfield.* Very fine and hot throughout, except from the 20th to 24th, when it was dull and much cooler. The springs were drying up and water getting scarce at the close, though crops were doing well and promised abundance.

JULY.

I. *Kensington, Edith Road.* The least fine month in the summer, a wet and broken period occurring in the middle.—*Muswell Hill.* R 21 per cent. less than the average of 21 years. The first week was dry, with the exception of ·17 in. on the 4th, but the remaining 24 days were mostly wet, R being recorded on 15, generally in small quantities.—*Finchley, Etchingham Park.*—The dry character of the preceding four months ceased after the first week, as R fell on 17 days, the total being about 7 per cent. above the average.

II. *Abinger Hall.* The much-needed R came in sufficient quantity to start into growth all root and grass crops. Much seed had lain in the ground ungerminated from the end of March or beginning of April.—*Wallington.* With the exception of 1892 the driest, and with the exception of 1887 the warmest, July since the record commenced. Fruit plentiful and very early, but not good. R 1·64 in. less than the average. Mean temp. 1°·6, and duration of sunshine 4 per cent., in excess.—*Keston Tower.* Very pleasant, with an average amount of R, which greatly revived vegetation, but much more was wanted. Very warm from 1st to 8th.

III. *St. Albans, The Grange.* Wet, only 9 days without R.—*Throcking Rectory.* Temp. and R above the average. Sunshine 140

hours; 3 sunless days.—*Bloxham Grove.* The temp. at the beginning was very high, but became gradually cooler towards the end. The total R is greater than that of any month since October, 1891, and although it came too late for the hay, which is one of the shortest crops ever known, it was very beneficial to the roots and pastures.—*Sedgebrook.* Very changeable, with constant TSS, but the R still below the average.

IV. *Walthamstow, Forest Road.* The wettest of the summer months, but with barely the average R. Temp. high, especially in the first half.—*Sudbury, Friars Street.* Very hot at the commencement, the temp. rising to 95° on the 8th, after which it was rather unsettled. —*Ipswich, Bishops Hill.* R 1·57 in. above the average, falling chiefly in heavy TSS.—*Woodbridge, The Cedars.* Very partial showers and T. All crops greatly improved, but hay very scarce and dear.—*Diss.* Warm and summer-like. R on 19 days, but the total rather under the average, generally falling in heavy T showers, with bright and pleasant intervals. Harvest began in the last week. Fruit and vegetables good and abundant, and potatoes very fine.—*Denver.* The rains in the second week started all vegetation, the meadows assumed the brilliant green of spring, and mangolds sown in April germinated and came up thickly. Remarkable heat on the 8th, after which the temp. did not reach 75°.

V. *Bishops Cannings.* Wheat harvest general in the week beginning on the 17th. R 1·23 in. above the average, but the total from January 1st still 1·19 in. below the average.—*Stowell Rectory.* Wet, with the temp. 2° above the average.

VI. *Cheltenham, Naunton Park Villas.* Warm, with an average R. —*Ross, The Graig.* The month was characterized by frequent showers, generally or often at night, with fine bright intervals. The R, though slightly in excess of the average, only penetrated a short distance into the ground, and deep-rooted things were still feeling the effect of the long-continued dryness. Harvest general in the last week.

VII. *Ketton Hall.* Very changeable and showery, with only four really bright days. R ·31 in. below the average. Frequent T. Harvest began in the third week.—*Hodsock Priory.* Showery and wet, and rather warmer than in the last few years. The small crop of hay was a good deal damaged by the rains, but roots grew well, and the harvest began generally in the last week. R more than 50 per cent. above the average.

VIII. *Seathwaite Vicarage.* The rainiest month since February, but with R not sufficient to replenish the springs exhausted by the previous drought.

IX. *Nostell Priory.* Remarkable for T showers, especially from 8th to 13th, and at the end.

X. *Ulpha Vicarage.* More or less R every day after the 7th, though the amount was small on many days. Temp. low after the 14th, seldom reaching 64°. Hay crops light, but not excessively so. The R for the 7 months exceeds the average of 5 years by ·75 in.—*Burgh-by-Sands Vicarage.* Very favourable for all agriculture, and everything looks exceedingly well, having suffered comparatively little from the dry weather.

XI. *St. Bride's Bay.* Wonderful weather; small quantities of R, then heat again, and everything parched.—*Rhiwbryfdir.* On the whole rainy, making up for the dry June.—*Douglas, Victoria Road.* The dry weather which had prevailed since March broke up on the 7th, after which copious R fell almost daily. Squally, unpleasant S.W. to N.W. winds prevailed after the 13th.

XII. *Melrose, Abbey Gate.* Mean temp. 1° above, and R ·98 in. below, the average.

XIII. *Edinburgh, Blacket Place.* Very sunless, only 114 hours of bright sunshine being recorded out of a possible 533 hours. R an inch below the average. TSS were very prevalent till the 19th.

XVI. *Coupar Angus.* The R, even with a flood on the 18th, caused by a fall of 1·05 in., is slightly below the average. Mean temp. slightly above the average, the min. on 18 nights not falling below 50°.

XVIII. *Loch Maddy.* Very fine to the 15th, but very little sunshine after, and during the last week strong and cold winds from W. and N.W.

XIX. *Scourie.* Hot and dry until the 15th, after which date R fell almost daily.—*Watten, H.R.S.*—Dry, mild and sunny during the first half; wet, cloudy, generally mild and sometimes sultry during the remainder.

XX. *Dunmanway, Coolkelure.* A very fine month for farmers, the days being generally fine and hot, and the R falling at night in sufficient quantity for growing crops, but the water-courses were still dry.—*Cork, Clarence Place.* Queenstown suffered considerably from scarcity of water, owing to the long drought. The R of the five months ending July 31st being less than half the average.—*Killarney.*

Generally a "dropping" month, with no marked feature except a fall of 1·15 in. of R in two hours on 8th. Abundance of mushrooms and wasps.—*Broadford, Hurdlestown.* Favourable on the whole, the R being ·66 in. below, while the number of rainy days was 3 above, the average of 8 years. The R fell mostly at night, and in small quantities, so was not much felt. Crops of all kinds looking well; hay crop about the average.—*Miltown Malbay.* Although 25 days gave more or less R, its effect on the parched earth was inappreciable, owing to the high drying winds and warm sun. Nearly all the springs are dry, those holding well in 1887 having failed.

XXI. *Kilkenny, Lion Villa.* Charming summer weather, except from 8th to 12th, when TSS occurred.—*Currygrane.* Harvest abnormally early, some oats being cut at the end of the month.

XXII. *Tuam, Gardenfield.* The first week dry, and the remainder variable. R ·51 in. less than the average.—*Lawderdale.* A rather damp month for haymaking, but good for roots.

XXIII. *Carrablagh.* The heaviest R in July since the record began in 1887.

AUGUST.

I. *Kensington, Edith Road.* The finest and hottest August of late years, remarkable for three consecutive readings of 90° and upwards, and the unparalleled min. of 71°·3 on the 18th.—*Muswell Hill.* R 1·34 in., or 48 per cent. less than the average of 21 years, this being the sixth consecutive month with deficient R, the deficiency on the six months amounting to 59 per cent.—*Finchley, Etchingham Park.* The first 11 days were mostly wet, followed by a dry week, and R fell on 7 out of the last 12 days. Total R little more than three-fifths of the average.

II. *Haslemere, Hazelhurst.* A fine sunny month; nearly all wells dry.—*Wallington.* The warmest, driest and sunniest August in the 8 years recorded. All fruit was plentiful, and a fair crop of grain, but there was very little grass and straw. R 1·42 in. less than, and mean temp. 4°·4 above, the average.—*Tenterden.* Though there has been neither an absolute nor partial drought, the ground is more parched, and the grass more dried up, even than in June. There were 10 days with the temp. over 80° in the shade, and the 17th, 18th and 19th were all over 88°.—*Hythe.* On the whole fine, hot and dry; good harvest weather.—*Keston Tower.* Extraordinarily dry,

the drought causing the leaves to fall off many trees, some being quite bare in the middle of the month. The country suffering greatly from want of R. Extremely hot from the 8th to the 20th, the 18th being the hottest day since the record began.—*Birchington, Thor.* Very hot, the max. in shade being 79° or upwards from the 8th to the 20th.—*Sheppey, Leysdown.* Very hot and generally dry; sunshine every day, and frequently all day.—*Beckenham.*—R only ·47 in., the smallest amount recorded since observations commenced in 1876. —*Lewes, Saxonbury.* Fifteen days' drought occurred after the 5th, with great heat.—*Emsworth, Redlands.* R 1·61 in. below the average of 9 years—*Maidenhead, Castle Hill House.* Hot, especially from 14th to 18th, and fairly dry. TS on 10th.

III. *Throcking Rectory.* Temp. and R much above the average. Sunshine 162 hours, no day being absolutely sunless.—*Bloxham Grove.* On the whole exceedingly pleasant, with very great heat from the 15th to 18th inclusive. With the exception of the 3rd and 11th, the R was not great, and the drought was beginning to tell again, and the wells were failing. Harvest nearly finished at the close.

IV. *Sudbury, Friars Street.* Fairly settled and hot at times. A very severe TS on the 10th, a house struck by L.—*Bishops Hill.* This will be long remembered as the "hot" August, the middle of the month being especially so; the shade max. was twice 86°, and the min. 65° and 66°. R ·21 in. less than the average, falling almost entirely in TSS.—*Diss.* Magnificent weather, with oppressive heat at times; the shade temp. rising above 80° on six days. Moderate R, and the harvest early. Fruit of all kind abundant and fine, with something like a plague of wasps.—*Denver.* The heat from the 8th to the 19th was very oppressive, the max. in shade on the 18th, 91°·8, being unprecedented. The harvest was somewhat delayed by R in the second week. In the last week haymaking began again with very fair second crops.

V. *Warminster, Rye Hill.* Hot and dry. Brilliant L on the evening of the 9th, but no R, 80 flashes were counted in a minute at times. —*Bishops Cannings.* R ·52 in. below the average. The wheat harvest was finished by the middle of the month, and it has been the best season for honey ever known. A good deal of hay made, and some cut on 31st.—*Stowell Rectory.* Dry and warm, the mean temp. being 3°·7 above the average.

VI. *Further Barton.* Very warm and dry after the 6th, and some

days intensely hot. No R for a week after the 11th, and for 10 days after the 20th. Vegetation parched; wheat harvest finished in the third week. Hay made and carried during the last week.—*Ross, The Graig.* Very fine, and on the whole the warmest August since 1861, with only half the usual R. Occasional intense heat, and 9 days with a shade max. above 80°. No really wet day, but occasional sharp showers, and some T and L during the first 10 days, and again from the 19th to 22nd. Harvest nearly completed, but pastures very bare and burnt up at the close.—*Tean Vicarage.* Many excellent second crops of hay have been secured, and in a few cases third crops. Pastures looking splendid.

VII. *Ketton Hall.* Very changeable, but mostly dry, and the country suffering more from drought during the last week than in any previous time this year. R ·64 in. below the average.—*Hodsock Priory.* Very fine and warm, and a grand harvest month. Mean temp. higher than in any of the previous 17 Augusts, and the max. the highest since 1876. Of the previous 17 Augusts, only 1883 had less R, and of the previous 12, only 1884 had more sunshine. R little more than half the average.

VIII. *Chelford, Astle Hall.* A good deal of R; very hot from 8th to 18th.—*Bolton, The Park.* A very favourable month. R ·82 in. below the average; temp. 3°·3, and duration of sunshine 34 hours, above the average.—*Southport, Birkdale.* Hot; mean temp. nearly 4° above the average. Particularly warm from 8th to 10th, and in the third week; R an inch below the average, and mainly confined to the first week. Ream water very low. Much sunshine.—*Lancaster, Rose Bank.* R slightly less than the average of 33 years.—*Seathwaite Vicarage.* Somewhat rainy, with an exceptionally steady high temp. Harvest the earliest in the memory of the inhabitants, and more green grass now than ever before known at this season.

IX. *East Layton.* Somewhat unsettled and gusty for the first 10 days, one or two rather strong winds shaking some ripe grain rather badly. The harvest has not been so early for about 40 years, and the crops are generally good.

X. *Whorlton.* Hot, with high winds and R during the first week.—*Ulpha Vicarage.* Very favourable to the rapid growth of pasture, which has seldom been so good and plentiful. A good deal of R, but intervals of bright weather and some very fine days enabled the late hay crops and the harvest to be well got in, the latter being over fully a month earlier than usual.—*Keswick, The Beeches.* On the

whole fine and warm, though showery at the beginning, and from the 19th to the 24th. The max. temp. exceeded 80° on six days. Bright sunshine 239 hours.—*Uldale Rectory.* Very pleasant and seasonable; nearly all the corn well ripened and safely garnered, Harvest just 7 weeks earlier than in 1892. The weather from the 14th to the 18th was the hottest remembered, though it did not exceed 80° in the shade.—*Burgh-by-Sands.* Though R fell on most days, there was hot sunshine, and on many days good drying winds, which enabled harvest operations to be carried on with scarcely any intermission, and most was gathered in in excellent condition, fully six weeks earlier than in 1892.

XI. *Llanfrechfa Grange.* Very hot, until the last few days; R about the average, but springs and tanks getting very low, and water scarce.—*Llanvihangel Court.* Winds variable and light. Hot from the 7th to the 20th. Springs, wells and watercourses failing, and rivers very low, the pastures, however, are but little affected.—*Rhiwbryfdir.* Very healthy and blessful for the earth in every way, being partly rainy and partly very fine.

XII. *Melrose, Abbey Gate.* Very fine; R ·99 in. below, and temp. 4°·5 above, the average. Harvest commenced on the 2nd, and will be finished in the first week of September, which is very rare in this part.

XIII. *Edinburgh, Blacket Place.* The warmest August since 1819. The mean temp. of the 14 days ending on the 20th was 8°·8 above the average.

XVI. *Coupar Angus.* R less than the average; max. temp. the highest in August for 13 years; mean temp. 3°·5 above the average.

XVIII. *Drumnadrochit.* Very hot till the 25th; R ·28 in. less than the average.

XIX. *Scourie.* Harvest operations checked, and the crops damaged, by the almost daily rains. T and L from 7th to 9th.—*Watten, H.R.S.* The first week was cloudy and wet, but the rest of the month generally clear, mild and fine.

XX. *Cork, Clarence Place.* R 1·82 in. above the average; harvest about a month earlier than usual, and the quantity above the average, due more to the great duration of sunshine than to excess of temp. —*Broadford, Hurdlestown.* Very favourable, the R being ·32 in., and the number of rainy days 5, below the average of 8 years. Crops of all kinds doing well.—*Miltown Malbay.* Although much R fell, very little of it percolated to the springs, and most of the wells and

streamlets were dry at the close, its only effect was the resuscitation of vegetation. The end of the month was splendid for harvesting, oppressively sultry from 11th to 18th.

XXI. *Kilkenny, Lion Villa.* Excepting five very wet days, lovely weather with scorching sun prevailed till the 16th, with a good deal of R at night. This was followed by a week of heavy R at night, the days keeping fine as before. Much T and L in the week ending 23rd. Gales on 20th and 21st. Cool but bright during the last week.—*Athboy.* As usual, the wettest month of the year.

XXII. *Tuam, Gardenfield.* Wet; R ·88 in. above the average. The last week was fine, the rest of the month changeable.

XXIII. *Belfast, Springfield.* Showery throughout, but no harm done to the crops, the wind blowing the corn dry shortly after the R fell. Falls of 1·05 in. occurred on 4th, and 1·24 in. on 6th.

SEPTEMBER.

I. *Muswell Hill.* R 1·48 in. or 59 per cent. less than the average of 21 years. The seventh consecutive month with a total below the average, the deficiency in these seven months amounting to 9·62 in. or 59 per cent., while the total from January 1st shows a deficiency of 44½ per cent.—*Finchley, Etchingham Park.* Very dry, the total R ·93 in., being less than two-fifths of the average. In the first half R fell on only three days, while in the latter half it fell on eight.

II. *Dorking, Abinger Hall.* The weather continued fine, and although there was a little R, more was greatly needed.—*Wallington.* A month of average temp. and R, though the greater part of the R fell in the last few days.—*Keston Tower.* The long drought continued with trifling interruptions until nearly the end of this month; the temp. was much above the average until the 21st, when cool weather set in.—*Lewes, Saxonbury.* The much wanted R fell during the last four days to the amount of 3·54 in.—*Niton, St. Catherine's House.* A lovely month, the R falling chiefly at night.—*Maidenhead, Castle Hill House.* Warm and dry.

III. *Throcking Rectory.* Temp. above and R below, the average. Sunshine 120 hours; no day being sunless.—*Bloxham Grove.* For the most part fine and pleasant. The R was slight, falling chiefly at the end of the month. The night temp. was on several occasions low, and on the 13th and 24th ice was reported to have been formed.

The R was not sufficient to start the grass, many of the springs and wells were failing, and the pastures completely bare of herbage.—*Sedgebrook.* Almost continuously fine and warm to the 27th, with the exception of a TS on the 8th; R 1·83 in. below the average of 10 years.

IV. *Manor Park.* R 1·47 in. less than in September 1892, and the difference of the last seven months from that year was 6·36 in.—*Walthamstow, Forest Road.* Very dry and warm. R well below the average.—*Bishops Hill.* Another fine and dry month; R 1·25 in. below, or less than half, the average —*Woodbridge, The Cedars.* Warm on the whole and favourable for farm work.—*Diss.* A splendid month, a little cool in the third week, but the remainder bright and warm; R on only seven days. On the 15th the temp. reached 76° in the shade. Garden produce generally good and abundant, and an enormous crop of apples and pears.—*Denver.* Very dry; root crops suffering much from drought.

V. *Warminster, Rye Hill.* The first half was fine and warm and haymaking was very general.—*Bishops Cannings.* R 1·44 in. below, or less than half, the average; barley harvest finished on the 2nd.—*South Molton, Rose Ash.* September began very hot, but turned cold about the middle, and the second half was showery with bright intervals.—*Stowell Rectory.* A month of average temp., with R a little below the average.

VI. *Further Barton.* Another month of drought, although R often threatened. A cold spell occurred from the 20th to 26th, with frost sufficient to injure tender plants; grass burnt as much as in June. More showery at the close.—*Cheltenham, Naunton Park Villas.* Dry and cool. Trees shed their leaves very early.—*Ross, The Graig.* R only 28 per cent. of the average. The drought was more felt than at any time in the summer; only 18·59 in. of R having fallen in the last 365 days, the smallest quantity since 1864. In the seven months ending September 30th, 8·33 in. fell (48 per cent. of the average) the smallest in the same months since 1870, when 7·74 in. was registered, but this is the only instance since 1818.

VII. *Ketton Hall.* Chiefly bright and dry until the 22nd; more changeable and showery after. Temp. higher than usual, and not enough frost to damage tender plants, which is quite unusual. R 1·81 in. below the average. Wind W. on 19 days.—*Hodsock Priory.* Another fine and dry month, with average temp. and less R than in any of the previous 17 Septembers, except 1884. A grand month

for autumn work, but more R would have done good to turnips; R little more than one-third of the average.

VIII. *Bolton, The Park.* R 1·37 in., and duration of sunshine 16 hours above the average. No frost in shade, but ground frosts on 5 nights.—*Southport, Birkdale.*—An overwhelming prevalence of moderate S.W. to N.W. breezes. R an inch above the average, and rather heavy in the latter part.—*Lancaster, Rose Bank.* R ·51 in. above the average of 33 years.

IX. *Thixendale.* Great scarcity of water, springs very low.—*East Layton Hall.* Brilliant harvest weather continued until the latter part and the harvest was completed by the middle of the month, even in the highest positions.

X. *Whorlton.* Very warm for the first fortnight, cold with S and wind in the latter part.—*Keswick, The Beeches.* The first half fine, but the latter half showery, and from the 22nd to 24th very cold.—*Uldale Rectory.* With the exception of February, this was so far the wettest month of the year, but upon the whole warm and genial. At the close the autumnal tints surpassed anything seen for many years.

XI. *Llanfrechfa Grange.* Very warm till the 19th, much cooler afterwards. Several times there was 10° difference between the shade min. at 4 ft. above ground, and the min. on the grass, which is most unusual.—*Llanrhangel Court.* Absence of S.W. winds and gales; winds mostly N.W. to W. Two spells of low temp. occurred; 10th to 13th and 20th to 25th. Great want of water in springs and wells, which is curious as the total R to date is but slightly below the average of 5 years.—*Douglas, Victoria Road.* Except for the somewhat heavy and not unwelcome R (·60 in.) on the 6th, the first 17 days were extremely fine, and some very warm. The period, 9th to 14th was unusually cold for the season, with strong N. and N.W. winds. R fell daily during the last fortnight, though often in small quantities. The total fall is below the average, and the month as a whole was a great improvement on those of late years.

XII. *Melrose, Abbey Gate.* Fine in the beginning, but rather cold and damp in the latter part. R 1·28 in. below, or rather less than half, the average.

XVI. *Coupar Angus.* R and mean temp. both very slightly below the average of 13 years, but the exceptionally long drought gave way on the 21st, and the turnip crop, which was suffering, improved.

XVIII. *Glenaladale.* Very wet and coldish at the end. Frost on

grass on two nights.—*Loch Maddy.* Exceedingly cold for the greater part, otherwise the weather was of the average description.

XIX. *Scourie.* R much above the average; corn and hay crops almost ruined.—*Watten.* The first half wet and mild and the latter half wet, cold, and stormy, with a series of gales and floods in the third week.

XX. *Coolkelure.* Very fine and mild. A remarkable second growth of most trees and shrubs, many of the flowering species of the latter having a second course of blossoms.—*Cork, Clarence Place.* Chiefly remarkable for small R, variable temp. and calm weather. R only a little more than one-third of the average. The min. temp. on the 21st (33°) was 3° lower that any in September for the previous ten years.—*Broadford, Hurdlestown.* Favourable on the whole, the R being ·14 in. below the average of 8 years. Weather very mild; rhododendrons in bloom for the second time this year; water very low in many places.

XXII. *Tuam, Gardenfield.* Fine from 1st to 4th and from 9th to 15th, the rest changeable. R 1·72 in. less than the average.—*Lawderdale.* Cold and wet. There has been no deficiency of water in springs or wells this year.

XXIII. *Belfast, Springfield.* Very fine and hot at the beginning, then showery till the 9th; from thence to the 18th lovely weather, and from the 22nd to the end showery and cooler. No remembrance of crops being gathered so early in such good condition.

OCTOBER.

I. *Kensington, Edith Road.* Very wet, but warm and sunny.—*Muswell Hill.* After 7 consecutive months of deficient R, the fall this month exceeds the average of 21 years by 1·10 in. or 36 per cent. The first 17 days were very wet., R falling on all but 4. The total from January 1st still shows a deficiency of 34 per cent.

II. *Abinger Hall.* Very warm and genial, with sufficient R to soak the ground, previous to which the ground on old pastures was dry to a depth of 15 to 18 inches.—*Wallington.* Warm and rather wet. Mean shade max. the highest since 1886. R 1·18 in. above the average of 5 years.—*Hythe.* The first 17 days very wet and unsettled, the latter part very fine, with a few light showers.—*Birchington, Thor.* Very mild throughout, and as there was no frost, everything continued to grow.—*Sheppey, Leysdown.* Very genial on the whole,

but the evenings cold towards the end. Beautifully warm rains caused the grass to grow as in spring.—*Lyndhurst, Cuffnells.* The third consecutive wet October.—*Lyss, Lingwood.* Sunshine recorded on 24 days.

III. *St. Albans, The Grange.* Excessively wet, though the sky at 9 a.m. was unusually bright. R nearly double the average.—*Throcking Rectory.* Temp. considerably, and R slightly, above the average. No frost to cut tender vegetation until 31st. Sunshine 105 hours, only 2 days being sunless.—*Slough, Langley.* With one exception the wettest month in more than 20 years; R falling on 17 days to the amount of 5·75 in. TSS on 7th and 9th produced ·69 in. and 2·36 in. respectively.—*Slough, Upton.* Unusually pleasant, with almost continuous sunshine, making the month rather an addition to summer than an autumn month.—*Bloxham.* The heaviest R (2·60 in.) since February. Many fine and pleasant days in the intervals between the R, and about the middle the temp. was high. Severe frost on the 31st cut down dahlias and geraniums and checked the growth of grass. The R had not set the drains running at the close or affected the springs, still it was beneficial to ploughed lands and roots.

IV. *Walthamstow, Forest Road.* The first half very wet, the second half rather dry; R much above the average; no frosts until the last days.—*Sudbury, Friars Street.* Fairly settled. T on 7th, and a good deal of L at night.—*Bishops Hill.* Another fine month with some nice rains, but the total ·62 in. less than the average.—*Diss.* Bright and genial; the R generally falling in the night. The last two days were cold and dull with light rains and a min. temp. of 26° and 25° respectively. Garden produce very abundant and good. Corn and hay very dear, the crops of grass and cereals being very scanty.—*Denver.* The days were generally warm, but some of the nights, especially towards the end, were cold. The R, which was not too continuous, softened the land without making it too wet, and a fine seed bed for wheat was generally obtained.

V. *Bishop's Cannings.* Wet and tolerably warm; R 1·53 in., or rather more than 50 per cent. above the average, but the ground not very wet at the close.—*Stowell Rectory.* Warm, with average R; mean temp 2°·1 above the average.

VI. *Clifton, Pembroke Road.* R 1·80 in. above the average.—*Further Barton.* Frequent R and high temp., which restored the burnt pastures. Sharp frost on the last two days. The dahlias were not

killed until the 30th. A well, 100 feet deep had only 1 ft. 3 in. depth of water.—*Cheltenham, Naunton Park Villas.* Warm and dry, T and L during the first week.—*Ross, The Graig.* Changeable, with much warm and fine weather and but little wind. The amount of cloud at 9 a.m. (4·8) is very small. The R for 8 months (March to October) shows a deficiency of 48 per cent., which has not been equalled since 1864.—*Bedworth Cemetery.* Remarkable for its genial summer-like weather; many of the early flowering plants looking splendid on the 29th, but on the morning of the 30th frost transformed them.

VII. *Ketton Hall.* Changeable, but milder than usual, and principally fine after the 7th, with a fair amount of sunshine. R ·46 in. below the average. Tender plants not killed by the frost till the 30th.—*Hodsock Priory.* Another warm, bright and dry month, with more sunshine than any of the preceding 12 Octobers, while only two out of the last 17 had a higher mean temp, and none as high a mean daily max. Very favourable for autumn work, but the ground was rather hard for ploughing.

VIII. *Lancaster, Rose Bank.* R 1·69 in. above the average of 33 years.—*Seathwaite Vicarage.* Very rainy and markedly mild until the closing days.

IX. *East Layton Hall.* A delightful month, clear with bright sunshine almost throughout. Water supplies and springs generally very low.

X. *Ulpha Vicarage.* The old folks say they never remember such a mild and favourable "back end"; the R was heavy, but there were many fine days. Dahlias and other autumn flowers were in full bloom until the 30th.—*Keswick, The Beeches.* Changeable and showery on the whole. Very mild from the 12th to 26th, the closing days fine with sharp frost.

XI. *Llanfrechfa Grange.* Fine and warm, and wheat sowing forward.—*Llanvihangel Court.* Wind almost constantly W. to N.W., but generally light. Great want of water, neither brooks nor ponds filling.—*St. Bride's Bay.* Wonderfully mild throughout.—*Douglas, Victoria Road.* Although 4·63 in. on 20 days seems a lot of R, it is not much more than the average, and even at the close the ground was very dry in places under trees and shrubs. While a great quantity fell at night, there were many beautiful warm autumn days and the month was calmer than usual, until the 20th, after which it was stormy.

XII. *Lilliesleaf, Riddell.* Showery but otherwise dry. Great

trouble throughout the district for want of water as all springs were still dry. The rivers, however, were pretty full.—*Melrose, Abbey Gate.* R 1·34 in. below, and mean temp. 1°·1 above, the average. Wind S. to W., moderate except on 16th, 20th, and 24th.

XV. *Inverary, Newtown.* Unusually wet ; 5·02 in. of R falling in the week from the 22nd to 28th.

XVI. *Coupar Angus.* With the exception of 1886 (which was a fraction of a degree warmer) the warmest October in 14 years. The R about ·50 in. below the average.

XVIII. *Glenaladale.* Very wet and the latter half stormy.—*Drumnadrochit.* R ·85 in. above the average of 7 years. The last ten days were unusually cold.

XIX. *Scourie.* R greatly above the average, falling on 28 days. The latter part was very cold and wintry, and H and sleet fell on several days, the high hills being quite covered with S.

XX. *Coolkelure.* Singularly mild ; rhododendrons, myrtles, and many other flowering shrubs in blossom a second time, with ripe berries on such as bear them ; many rooks nesting a second time.—*Cork, Clarence Place.* Both R and temp. considerably below the average.—*Killarney.* Plants blooming a second time, and raspberries ripening abundantly.—*Broadford, Hurdlestown.* About an average October ; misty R on many days, but no great falls, and the total ·18 in. below the average, but number of rainy days 3 above the average of 9 years. —*Miltown Malbay.* The mildest and least boisterous October for years ; though comparatively wet, there was an absence of the usual storms ; vegetation very vigorous. Although 17 inches of R have fallen during the last four months, the ground is not yet thoroughly saturated.

XXI. *Kilkenny, Lion House.* Much fine sunny weather, but sudden changes and more or less R daily to 18th. Generally fine from 19th, but cold.

XXII. *Tuam, Gardenfield.* Partly dry and partly wet ; R ·08 in. above the average. Sharp frost on the 30th.—*Lauderdale.* Wet and unsettled, with much high wind.

XXIII. *Carrablagh.* Almost continuously wet, but the R was not as a rule heavy, and there were no great storms.

NOVEMBER.

I. *Muswell Hill.* After the 1st very little R fell till the 14th, but on this and the 5 succeeding days 1·24 in. fell, the total for the

month being 18 per cent. below the average of 21 years,—*Finchley, Etchingham Park.* More than half the R fell in the 6 days, 14th-19th, the total being about 8 per cent. less than the average.

II. *Wallington.* Another remarkable month, noted for its low temp., the min. in shade, the max. in shade and the mean temp. being the lowest since 1887. The amount of cloud is the largest, and consequently the percentage of sunlight is the smallest, recorded. R ·81 in. below the average of 5 years.—*Keston Tower.* Cold, with about an average R. Fog on only one day. A storm from the north with some S from the 17th to 20th.—*Sheppey, Leysdown.* Remarkable for frequent and sudden changes of temp., and prevalence of strong winds and gales.

III. *Throcking Rectory.* Temp. and R both below the average. Sunshine 34 hours; 11 sunless days.—*Slough, Upton.* More pleasant than usual, with more sunshine, and only slight mists. The last third variable, cold and mild alternately.—*Culham Vicarage.* Rough and stormy at times; great variation of temp.

IV. *Walthamstow, Forest Road.* Rather cold on the whole, but more sunshine than usual in the first half; R about the average.—*Sudbury, Friars Street.* Unsettled; L on the night of the 1st, and a heavy gale on the 18th, with S.—*Bishops Hill.* R ·90 in. above the average. Fearful N.W. to N.E. gales from the 17th to 19th, doing much damage on the coasts. Very unsettled weather after.—*Woodbridge, The Cedars.* The open weather economized forage, and helped farm work.—*Diss.* The month set in dull and rainy, but after the 3rd there was much fine weather till the 14th. On the evening of the 16th a gale commenced from the E., and continued from the S.E. through the 17th. There was a lull on the morning of the 18th, and then the gale sprang up again from the W., and blew throughout the 19th and 20th from the N. and N.E. The remainder of the month was warm and moist.—*Denver.* Mild on the whole, but a few very cold days.

V. *Warminster, Rye Hill.* Very rough and stormy from 16th to 20th. The autumn was very favourable to late-sown roots.—*Bishops Cannings.* Cold, without any severe frosts; R 1·01 in. less than the average. In spite of over 5 inches of R in October, the deep chalk well of the Devizes Waterworks was, on November 20th, lower than ever before, viz., 117 ft. 3 in. to the water from the surface.—*Mildenhall.* A very cold month, but with no very low temp., the last few days quite mild.

VI. *Ross, The Graig.* Another dry month; generally seasonable, but more frost than usual; little fog. Several nearly cloudless days, but a good deal of overcast "drizzly" weather, and unusually great changes of temp. The R for 12 months ending November 29th was only 17·26 in., the smallest in the same period since 1864.—*Clive Vicarage.* Surface springs and ponds lower than ever before known at this season.

VII. *Hemingby.* A range of shade temp. of 35°·5 occurred within 48 hours, the max. for the month occurring on 3rd, and the min. on 5th.—*Hodsock Priory.* Rather cold and dull, with a large proportion of N. winds, and about the average R, but more than the average number of rainy days. The gale on the 18th did no damage, but the S drifted a good deal, and several roads were blocked next day.

VIII. *Bolton, The Park.* The features of the month were, great and frequent variations of temp. and pressure, gales, dry atmosphere, less fog and more sunshine than usual. R ·44 in. less than the average.—*Southport, Birkdale.* Dry and somewhat cool, with keen northerly gales during the latter half. R little more than a third of the average.—*Seathwaite Vicarage.* Mild on the whole, with rather less than the average R, the chief feature being the intensely cold prolonged N. wind on the 18th and 19th, which though amounting to a gale, did no particular damage here.

X. *Ulpha Vicarage.* Unusually bright, with low temp. except during the last few days; R about the average. The 10 days without R, from the 6th to 15th, was the longest break in the second half of the year. There were several ground frosts and some very heavy gales.—*Keswick, The Beeches.* On the whole fine during the first half, but changeable in the second. Duration of sunshine 66 hours.—*Uldale Rectory.* Variable on the whole, though open and free from S. All agricultural operations well advanced, grass green and plentiful.

XI. *Llanfrechfa Grange.* Fine for agricultural work, with steady bar. till the 12th, then very variable, with unsettled weather.—*Llanvihangel Court.* Dry; springs and watercourses very low. Great alternations of temp. S on 18th, 19th and 30th.—*Douglas, Victoria Road.* The first half (except a N.E. gale on 6th) was fine and calm. A long spell of N. to N.E. winds prevailed from 5th to 15th, a strong S.E. gale on 16th, and terrific N. and N.N.W. gales on 17th and 18th with S; very strong N.W. winds and gales continued to the 23rd, followed by strong S.W. winds and mild weather. Polar

winds occurred on no less than 19 days, S or H fell on 5 days, and R fell almost daily during the latter half, but the total is below the average.

XVI. *Dollar.* Fine in the early part; windy and showery in the latter.—*Coupar Angus.* A cold month, with only half the average R.

XVIII. *Glenaladale.* Fine winter weather for the first three weeks, with low temp. The last 10 days very wet and stormy.—*Loch Maddy.* Lovely for the first half, but the latter half exceedingly cold and boisterous.—*Drumnadrochit.* Cold and windy weather, with S and sleet, and the hills S clad from 1st to 5th. High winds, frequent gales, and R or S almost daily in the second half. R ·74 in. above the average of 7 Novembers.

XIX. *Watten.* The first half fine, dull and cloudy; but during the latter half storms of wind, R and S. Frosts seldom, and of short duration.

XX. *Coolkelure.* A fine month, principally remarkable for the prevalence of N. and N.E. winds, and a violent gale on the 17th and 18th.—*Cork, Clarence Place.* R less than half the average.—*Killarney.* The driest November for 13 years, the mean temp. being amongst the lowest for the same period.—*Broadford, Hurdlestown.* The first half was dry and cold, and the latter half mild, damp and misty. R 1·08 in., and number of rainy days 6, below the average of 9 years. S on one night, and frost on 17 nights. The sky was quite clear at 9 a.m. on 4 days.—*Miltown Malbay.* Dry and cold. The springs were again failing when the storm from the 16th to 19th set in; it did no damage here, its effects being scarcely felt.

XXI. *Kilkenny, Lion Villa.* Fine with occasional storms, much sunny weather and hard frosts. Heavy storms; that from 16th to 19th, causing much damage to roofs, trees, &c. Stormy and wet, but exceptionally mild at the close.

XXII. *Tuam, Gardenfield.* Dry, with less than half the average R. Fine from the 4th to 15th, and severe frost from 5th to 8th.

XXIII. *Belfast, Springfield.* Dull, damp and showery for the first five days, then no R till the 16th, and on the 17th the most severe storm for many years. Stormy weather continued till the evening of the 29th, and S and sleet fell on the night of the 30th.—*Carrablagh.* Favourable and dry on the whole with remarkably high bar. from the 7th to 12th.

DECEMBER.

I. *Kensington, Edith Road.* Mild and exceedingly stormy, with at least four very severe gales.—*Muswell Hill.* R 10 per cent. below the average, nearly all falling in the two periods 6th to 13th and 19th to 24th.—*Finchley, Etchingham Park.* R about the average. The first half of the month was much wetter than the latter half.

II. *Abinger Hall.* Open, and free from very severe weather. Work of all kinds uninterrupted.—*Hythe.* Mild and variable, with high winds. The lowest and highest readings of the bar. during the year, both occurred this month, on the 20th and 30th respectively.—*Keston Tower.* Rather pleasant with average temp. Some very fine days, but a good deal of R. The nights of 2nd and 3rd very cold; the last week beautifully sunny.—*Birchington, Thor.* Generally mild, and very little frost, S. and W. winds prevailing.—*Sheppey, Leysdown.* A good deal of mild, open weather, with occasional storms of wind and R.—*Lewes, Saxonbury.* Mild, except the 2nd and 3rd, and the last two days.—*Maidenhead, Castle Hill House.* Mild, except the last week. Gale with R and S on the 20th.

III. *Throcking Rectory.* Temp. and R both slightly above the average. Sunshine 43 hours; 13 sunless days.—*Bloxham Grove.* With the exception of six days (only three of which were severe) mild and favourable for farming. R considerable, and some heavy fogs at the end.—*Sedgebrook.* R ·06 in. less than the average of 10 years.

IV. *Walthamstow, Forest Road.* Mild and rough with less than the average R, and great freedom from frosts.—*Sudbury, Friars Street.* Rather mild, but colder at the end; L on the 8th and a heavy gale on the 12th.—*Ipswich, Bishops Hill.* The first three weeks unsettled with frosts and heavy gales and squalls of R, the remainder settled, calm, and mild, with mists and sunshine; R ·20 below the average. —*Diss.* The first day was cold with frequent S storms; the rest of the month was genial and bright till the last day, when sharp frost commenced. Very severe gales however prevailed from 8th to 13th and 19th to 25th.—*Denver Rectory.* Generally warm and cattle were able to feed in the pastures throughout. On 25th 27 different kinds of flowers and weeds were counted in blossom.

V. *Bishops Cannings.* All springs and streams still very low.—*Druid House.* On two occasions more than two inches of R fell in 24 hours.—*South Molton, Rose Ash.* A few days very cold then mild lovely weather, and the last week very fine and beautiful.

VI. *Further Barton.* Sharp frost at the beginning and end of the month. The water in a well, 100 ft. deep, which was only 6 inches deep on November 15th, by December 8th had risen to 2 ft. 8 in., on 15th to 10 ft. 6 in., and on 29th to 20 ft.—*Cheltenham, Naunton Park Villas.* Wet, warm, and windy.—*Ross, The Graig.* The drought, which had lasted for 729 days, with a R of 41·17 in., was the greatest since records began in 1818, but was nearly equalled in 1854-55 and 1864-65. The minimum R in 365 days being that ending December 5th, 1893—16·91 in. The heavy R from 8th to 20th was therefore very acceptable, particularly in the neighbouring villages, where water supplies had become very short. The fluctuations of weather and temp. were both great. The closing ten days of the year were warm and fine.

VII. *Ketton Hall.* R 1·00 in. below the average. Wind westerly on 26 days. The garden spring ran only $3\frac{3}{4}$ gallons per minute on 31st; the smallest quantity recorded in the last six years.—*Hodsock Priory.* A mild and stormy month with very little frost. In the last 17 years only 3 Decembers have been warmer. In the latter part the changes of pressure were large and rapid. R about 33 per cent. above the average.

VIII. *Chelford, Astle Hall.* Cold and wet with sharp frosts at times. —*Seathwaite Vicarage.* Unusually mild, with R on 27 days, though the total fall was not excessive. No S, and severe frost only on the 2nd.

IX. *Thixendale.* The last week was quite spring-like; a green Christmas.—*East Layton Hall.* Very open weather and out-door work well forward. R light and springs feeding very slowly.

X. *Ulpha Vicarage.* Except from 4th to 10th the weather was wonderfully mild, and although the R was heavy there were many fine days. The week from the 4th to 10th was as wild as well could be, with gales R, H, S, T and L.—*Keswick, The Beeches.* Mild, wet, and windy, with very deficient sunshine. Frequent S on the mountains, but hardly any on the low ground.—*Uldale Rectory.* Very mild; frost only on the 1st and 2nd, and the ground never covered with S.—*Lowther Castle.* Rainy, damp and mild and unseasonable throughout, with remarkably little S or frost.

XI. *Llanfrechfa Grange.* R considerable, but very acceptable, all springs and wells being very low.—*Llanvihangel Court.* Most of the month unhealthily warm; many gales, the wind chiefly S.W. and W. Great fluctuations of pressure and temp.—*Douglas, Victoria Road.*

Generally mild, but very wet and stormy. R fell every day except 30th, but never exceeded half an inch in the 24 hours. Wind S.E. to S.W., and almost uninterrupted gales from 6th to 24th.

XII. *Lilliesleaf, Riddell.* Cold at the beginning, then stormy, and calm at the end. As a whole wet and remarkably warm. Winds chiefly W. and S.W. River high on 14th and 23rd.—*Melrose, Abbey Gate.* A remarkably mild month, the mean temp. being 3°·4 above the average; R ·93 in. above the average.

XIII. *Edinburgh, Blacket Place.* The mildest December since 1873.

XVI. *Callander, The Gart.* Excessive R, 10·74 in.—*Coupar Angus.* Memorable for high temp. R a little above the average.

XVIII. *Glenaladale.* R 22·20 in., the heaviest fall in any month during 27 years, excepting February, 1868, when 29·98 in. fell.—*Loch Maddy.* Gale after gale almost throughout, that of the 8th being specially severe. The last three days very quiet and mild.

XX. *Coolkelure.* A wet month, remarkable for the frequency of violent, squally gales, sometimes with and sometimes without heavy R, but in all cases springing up suddenly.—*Cork, Clarence Place.* Excessive R, the total fall being an inch above the average, and frequent gales.—*Broadford, Hurdlestown.* Very mild, rhododendrons being in flower in the open from the 20th. R ·74 in., and rainy days 5, above the average of 9 years.—*Miltown Malbay.* Very rainy and tempestuous, with extraordinarily high seas nearly all the month.

XXI. *Kilkenny, Lion Villa.* Wet and very cold, with curiously mild intervals. Heavy gale from S.W., with T and very vivid L on 7th. Severe storms, chiefly at night, on 9th, 12th, 17th, 18th, 19th and 21st. Bright and sunny, but damp at the close, with fog and white frost on 31st.

XXII. *Tuam, Gardenfield.* Only a few dry days; R ·57 in. above the average.

XXIII. *Belfast, Springfield.* Variable throughout. Frost on 1st, then showery and dull till 6th; stormy, with R and sleet from thence till the 10th. Very mild from 14th to 19th, then stormy for a couple of days, and after the 22nd mild and spring-like.—*Carrablagh.* No S on the ground, but much R and wind.

OBSERVERS' NOTES ON THE YEAR 1893.

ENGLAND.

DIVISION I.—MIDDLESEX.

TEDDINGTON.—On 26 days the temp. rose above 80°, and on 4 days above 90°, neither of which circumstances has occurred before in 30 years' observations.

STAINES.—R 2·68 in. greater than that of 1887, and falling on 41 more days.

STRAWBERRY HILL.—R about five inches below the average of 5 years. In the four months, April to June, only 2·76 in. fell; in 88 days ending May 28th ·92 in. fell; in 76 days ending May 16th, ·30 in. fell, and the 30 days ending April 16th were rainless.

KENSINGTON, EDITH ROAD.—Remarkable for warmth and dryness, especially during the first 6 months, when only 5·93 in. of R fell, in spite of a wet February. The total R, owing to a rather wet autumn, exceeded that of 1887 by nearly one inch. Remarkable absence of TSS. Every month except January and November warmer than the average. Absolute droughts, of 30 days ending April 15th, 15 days ending May 14th, and 15 days ending June 21st. Partial drought for 77 days ending May 16th, with ·63 in. of R.

WESTBOURNE GROVE.—A dry year, remarkable for the length and brilliance of the summer. From March 4th to April 15th there was absolute drought, excepting a fall of ·10 in. of R on March 16th, and from March 4th to May 14th only ·26 in. fell.

MUSWELL HILL.—The total R, 19·97 in., is less than that of any of the preceding 21 years, during which a gauge has been kept, and 8·64 in., or quite 30 per cent., below the average. The deficiency was chiefly caused by the long drought in March, April, May and June, only 1·75 in. having fallen in the 122 days from March 4th to July 3rd; this period included an absolute drought of 29 days

ending April 15th, and a partial drought of 85 days ending May 28th, with ·81 in. of R. Only in February and October did the R exceed the average, the other 10 months being all deficient. The number of rainy days was about 31 per cent. below the average. October 9th was the only day with more than an inch of R.

FINCHLEY, ETCHINGHAM PARK.—R about three-quarters of the average, and less than that of any year of the 8 recorded, except 1887, when the fall was ·44 in. less. The deficiency was mainly caused by the long drought from March 5th to July 7th, 125 days, during which 1·95 in. fell. There was absolute drought for 25 days from March 22nd to April 15th, and partial drought for 77 days, March 1st to May 16th, while in the 72 days, March 5th to May 15th, only ·27 in. fell. The intensity of the drought is also shown by the fact that R was recorded on only 30 days during the 4 months, March to June, the average fall on these days being barely ·07 in. Three months, February, July and October, exceeded the average, December had just about the average, and the remaining 8 months were deficient. There was a marked absence of heavy falls, and more than an inch in 24 hours was recorded only once.

DIVISION II—SOUTH EASTERN COUNTIES.

HASLEMERE.—R nearly the same as that of 1892. Between March 4th and May 15th only ·19 in. of R fell and between March 16th and May 15th only ·04 in.

HASLEMERE, HAZELHURST.—The year was remarkable for continued sunshine and great drought; in 122 days, ending July 3rd, only 2·29 in. of R fell; in 59 days, ending May 14th, only ·06 in.; in 72 days, ending May 14th, ·24 in. There were two absolute droughts, 30 days, ending April 15th, and 15 days, ending May 14th.

GRAYSWOOD HILL.—An exceedingly dry spring; between March 18th and May 15th no measurable quantity of R fell.

HASCOMBE.—A most enjoyable year for all but the farmer and gardener. For the farmer most disastrous; the drought from early March until July, destroyed the hay and corn crops, and roots were sown two or three times. The autumn rains restored the roots in a marvellous way, and all promises well for 1894.

CRANLEIGH COMMON.—January and February very wet; from March 4th to June 22nd very fine and dry; August and September

also very fine and dry; water scarce in many places and grass parched. Most of December very mild.

GODALMING, WITLEY.—A year of glorious sunshine, but of great drought. February was true to its character of "Fill dyke"; March was dry and very warm with little E. wind. Migrants appeared remarkably early; the hawthorn was fully out by April 23rd, and strawberries were gathered from the garden on May 18th.

DORKING, HOLMWOOD.—The smallest R in 20 years, being ·14 in. less than that of 1887.

DORKING, FIR TOR.—This year, dry as it was, was exceeded in dryness by 1884 (slightly) and by 1887, in which year there was 4·61 in less R, but the spring and summer drought of 1893 was far worse practically than any remembered.

FARNHAM, THE BOURNE VICARAGE.—The four months, March to June inclusive, gave a R of only 2·07 in., and the total for the year is 3·01 in. less than the average of 10 years. Small as is the R of 1893, it is yet nearly an inch greater than that of 1884 and of 1887.

REDHILL, OXFORD ROAD.—R 6·78 in. below the average of 27 years, the deficiency exceeding an inch in the following months, March, April, May, June, August and September.

REIGATE, DOODS.—Excessive drought from March 1st to September 30th, with the exception of July. January, February, October, November, and December were wet, making 6 months with R in excess, and 6 months very deficient. Only one fall exceeded an inch in 24 hours.

NUTFIELD, HOLMESDALE.—The driest year since the record commenced in 1887, the fall being ·16 in. less than in that year, and 9·86 in. less than the wet year 1891. Two long periods of drought occurred—March 18th to April 15th (29 days), and April 21st to May 14th (25 days); while only ·12 in. of R fell in the 58 days ending May 14th.

DORKING, HIGH ASHURST.—Particularly dry from March to September, with the exception of July, and a very hot and long summer; vegetation suffering considerably. There were three periods of absolute drought—March 17th to April 15th, April 17th to May 15th, June 7th to June 21st—and a partial drought of 75 days ending May 16th.

ASHTEAD.—The R of the seven months, March to September, averaged only ·96 in. per month. There was no fog in November and none in December till the last week.

KENLEY.—After a heavy R in February a dry and wonderfully fine period set in, the R of the months March to August being 8·97 in. below the average of six years. The dry weather continued till December which was windy, mild and wet, with nearly an inch more than the average R.

WINDLESHAM.—Very dry, and water scarce in this neighbourhood.

WALLINGTON.—A most marvellous year; R 5·91 in. below the the average of 5 years ; relative humidity 79, the lowest on record. Mean max 60°·0, and mean temp. 51°·2., the highest on record.

SNARGATE.—Serious injury to Romney Marsh graziers from floods in February and the beginning of March, and still more from absence of growth of grass during the dry period from March 17th to September 15th. In 94 days, ending June 18th, only ·88 in. of R fell. The high winds on November 18th—20th and December 12th and 20th, appear to have diminished the amount of R registered in this exposed situation.

DYMCHURCH RECTORY.—A strange year. In four months, March to June, only 1·62 in. of R fell, while in February, July and September, 11·52 in. fell.

TENTERDEN.—January was at first intensely cold, February warm and very wet, March much less windy than usual, with 220 hours of sunshine, and 11 days with temp. over 60°. April was the driest month during 30 years, and the warmest since 1865, with six days over 70°. From March 17th to May 15th, only ·05 in. of R fell in 60 days, but the partial drought of 73 days, ending May 28th, was exceeded by one of 85 days, ending Sept. 1st, 1885. Neither the slight TSS in May, nor the two heavy local falls of about an inch each on June 19th and August 31st, did much to check the results of drought and heat, and although the showery and cooler weather in July gave a start to vegetation, the extreme heat from Aug. 8th to 18th, quite stopped it again. After the R of September 16th, however, grass began to grow and especially during the warm October and the wet fortnight from Sept. 28th to October 11th, during which period 4·92 in. fell. November was colder than usual and the gale and S storm on the 18th were very bad; fortunately December was fairly warm till after Christmas. There were 187 days with temp. above 60° in shade, nearly 30 more than in any recent year; 72 were over 70°, and 21 over 80°, ten of the latter being in August. Duration of sunshine 1,911 hours.

CRANBROOK, HARTLEY.—Kent was hard hit by the drought;

in many places corn did not come up at all, and there was no grass all the summer. In 76 days from March 2nd to May 16th, only ·30 in. of R fell, and in 124 days, ending July 3rd, only 1·75 in. The fall on October 11th, 1·65 in.. was the largest since September 3rd, 1884.

TUNBRIDGE WELLS, CAMDEN PARK. The year was signalised by a prolonged partial drought of 109 days, or a succession of absolute and partial droughts :—

Absolute Droughts.	Partial Droughts.
March 16th to April 16th ... 30 days.	Mar. 4 to Apr. 16... 41 days...R·13 in.
April 16th ,, May 15th ... 28 ,,	,, 4 ,, May 15 .. 70 ,, ...,,·18 ,,
June 6th ,, June 22nd ... 15 ,,	,, 4 ,, June 22.. 109 ,, ...,,·91 ,,
	Aug. 6 ,, Sep. 6... 30 ,, ...,,·29 ,,

Notwithstanding this, until June the fall from January 1st was always in excess, month by month, of that in 1892.

TUNBRIDGE WELLS, FERNDALE.—R 4·94 in. below the average of 15 years. The falls of March and April were the smallest recorded in that period, and that of May has only once been less.

ASHFORD, BETHERSDEN.—An extraordinarily dry season; from March 2nd to the end of June (17 weeks) only 1·34 in. of R fell.

MAIDSTONE, MOUNT HOUSE.—As regards temp. 1893 beats the record of 25 years; on 6 days in April the max. in shade was 80° and upwards, on the 20th it was 86°, on June 19th 92°, and on August 18th 93°; on four occasions over 90° was registered, 89° being the highest recorded previously. As regards R there is no record of such a prolonged drought, no R being measured between March 17th and May 16th, an absolute drought of 59 days.

SELLING, HAREFIELD.—Remarkable for its great drought; no hay crop, and a very bad year for farmers.

SEVENOAKS, PURLEIGH.—Total R 4·50 in. below the average of ten years. Especially dry from March to June inclusive.

KESTON TOWER.—A good deal of hard frost in January, succeeded by a wet February. Then followed a remarkable period of drought, which lasted, with occasional intervals, nearly seven months, doing great damage to all crops. A very warm spring and summer.

ASH, PETTING'S HOUSE.—Very warm and dry; all ponds empty after July 1st. Absolute drought from March 17th to April 15th, and partial drought for 88 days from March 2nd, with ·54 in. of R.

BIRCHINGTON, THOR.—Remarkable for excessive heat and long drought. A very good and mild autumn with ample R, enabled the crops to partially recover from the dry, hot summer.

ST. PETER'S, HILDERSHAM HOUSE.—The only point to notice

apart from the drought, is that when the drought began to break up, the rains seemed very partial.

MARGATE.—R about three inches below the average, and only once less in 13 years. February was very wet and on the 21st occurred the only fall of over an inch in one day during the whole year. There was practically no R from March 18th to May 16th, and the first half of June was also rainless. The number of rainy days is 17 less than the average.

BECKENHAM, FOXGROVE.—Remarkable for a cold January, persistent drought through March to June, and the greater part of August and September, for exceptional heat in April and from August 6th to 22nd, and the very unusual amount of sunshine throughout the summer. R exceeded ·50 in. on only 6 days, and 1·00 in. on only one day. In the six months April to September, only 4·55 in. fell; in 110 days, from March 4th to June 21st only ·67 in., and in 52 days, August 5th to September 25th, ·75 in. In 9 days, October 9th to 17th, 2·91 in. fell, or 16½ per cent. of the year's total.

ROCHESTER, HOO ST. MARY.—The sunniest summer remembered, with high temp. right through the spring and summer, and an unprecedented drought in the spring. Although it was such a good summer it was most disastrous to agriculture, and was by far the worst year experienced by the oldest agriculturist. TSS though frequent, were accompanied by scarcely any R. On July 12th at 4 p.m., three waterspouts occurred at the same time, and burst two miles S.

BLACKHEATH, WESTCOMBE PARK.—Remarkable for the long drought from March 5th to June 22nd, during which time only ·76 in. of R fell in 109 days. The total is about five inches below the average.

ARUNDEL.—R 1·95 in. less than the average of 10 years.

ARUNDEL, CLAPHAM RECTORY.—March, April, May and June were very dry, and wells very low.

CHICHESTER, WATERGATE GARDENS.—March, April and May were the driest on record during nine years. Springs were very low at the close of the year.

MIDHURST, BORDEN WOOD.—The summer was hot and dry. No first hay crop, and corn crops very poor. Absolute drought from March 17th to April 15th, and April 30th to May 15th; only ·05 in. of R fell from March 17th to May 15th. February and October were very wet.

HORSHAM, MANOR HOUSE.—Drought very severe and continuous.

EASTBOURNE, WILMINGTON SQUARE.—January and February were wet, followed by four very dry months. The heavy downpour on July 16th (1·97 in.) fell in six hours and quickly dried up, and it was far in September before the land was well watered. R only 1·00 in. below the average of 8 years.

FALMER.—Although ·89 in. more R fell in the first 6 months of 1893 than of 1892, the drought was felt much more. For the first time in 33 years April was rainless. There were 60 days without R, from March 16th to May 16th, and 75 days, from March 1st to May 16th, with only ·18 in.

LEWES, IFORD.—Owing to the heavy R in February, July, September and October, the total for the year is ·33 in. above the average of 14 years, notwithstanding the long drought, but the number of rainy days is 26 less than the average.

LEWES, BEDFORD LODGE.—R 5·25 in. below the average of 25 years.

WINCHELSEA, THE FRIARS.—Extraordinary drought from March 1st to July 3rd, in which month 1·52 in. of R fell on the 16th. Foliage and blossom were exquisite in the spring, in consequence of the wet February; the flowers were late in the summer, owing to the drought, but from the mildness of the autumn many continued in bloom till Christmas.

MARESFIELD, FOREST LODGE.—The year 1893 was in many respects abnormal. The months in which R was in defect from the average of the 30 years ending with 1885 were January, ·95 in.; March, 1·33 in.; April, 1·88 in.; May, 1·34 in.; June, 1·14 in.; August, 1·69 in.; November, ·89 in; and December, ·19 in.; while those in which the R was in excess were February, 1·64 in.; July, ·68 in.; September, ·18 in.; and October, 1·03 in.; leaving a total deficiency of 5·88 in. April was the driest month recorded during 38 years' observation, as only ·03 in. entered the gauge, and that all fell on the 16th. A tremendous storm of R occurred on October 11th, 1·70 in. It is noteworthy, as affecting the average of a long series of years, that had my observations terminated with 1892, the average would have amounted to 31·65 in., the addition of the single dry year which has just finished reduces that average to 31·51 in. R or S was measured on 174 days as against 200 in 1892, and 232 in 1890. From March 17th to April 15th inclusive, not a drop of R was measured, while another phenomenal drought of 28 days

terminated on May 14th. There were also 14 consecutive days without R in June, and the same number in August. Studying my 38 years' sequent record, I utterly fail to trace anything like a weather cycle. The exceedingly dry year 1858, when only 21·13 in. of R fell, occurred between two whose fall approached very nearly to the average; the same applies to 1872 also, when 46·15 in. was registered.

CROWBOROUGH OBSERVATORY.—R 8·23 in. below the average of 23 years, and temp. 1°·8 above the average of 21 years.

NITON, ST. CATHERINE'S HOUSE.—During the first six months 7·22 in. fell on 55 days, and in the second half year 18·21 in. fell on 85 days.

VENTNOR.—There were 59 days from March 17th with only ·06 in. of R on April 29th, and again 21 days from May 30th with only ·07 in. on 2 days.

WEST COWES, HOLMWOOD.—R 5·22 in. less than the average of 14 years, but not so small as in 1887, 1889, or 1890. In the 59 days from March 17th to May 14th, only ·02 in. of R fell.

CHRISTCHURCH, MUDEFORD.—R 3·09 in. less than the average of 20 years, falling on 130 days; the smallest number since 1870; only ·01 in. fell in April, and no other fall took place between March 17th and May 15th. The first 6 months were the driest in any year since 1870, the R being—1870 6·83 in. on 54 days, 1893 7·74 in. on 56 days, while the average for 20 years is 11·59 in.

ABSOLUTE DROUGHTS.

1870.	January	16th-29th, 14 days	1893.	Mar.	18th-April 28th, 42 days
,,	April	10th-25th, 16 ,,	,,	April	30th-May 14th, 15 ,,
,,	May	16th-29th, 14 ,,	,,	June	6th-21st, 16 ,,
,,	June	17th-July 2nd, 15 ,,			

PARTIAL DROUGHTS.

1870.	May	16th-July 2nd,	48 days	R, ·20 in.
1893.	Mar.	18th-May 14th,	58 ,,	,, ·01 ,,

LYMINGTON, PENNINGTON.—Total R the smallest since the record began in 1888. The first wet February for 6 years, 3·51 in. against an average of ·95 in. for the preceding 5 Februaries. March, April, May and June were very dry, especially April, when only ·02 in. of R fell. July was the wettest month.

WICKHAM, WEST LODGE.—The driest year since 1887, R 5·18 in. below the average of 9 years. On January 7th ·06 in. of R fell, with the thermometer at 31°. There were two periods of absolute

drought, March 17th to April 15, 30 days, and April 30th to May 14th, 15 days.

SOUTHAMPTON, RED LODGE.—Remarkably dry spring and summer; only two days in April on which R fell. No grass or hay in this district.

ALRESFORD, HINTON AMPNER.—The well here, which is 100 feet deep, began to rise on October 11th, having been reduced to 2 ft. 9 in. of water. This, as before noticed, takes place about 10 to 16 days after the first substantial R.

ALTON, EAST TISTED RECTORY.—Cereals, especially wheat, were very superior in quality, but about 25 per cent. short in quantity, and the hay crop was 75 per cent. deficient. All roots except mangolds were excellent in quantity and quality.

ROTHERWICK, TYLNEY HALL.—The smallest R registered in 20 years. Most crops were dried up and an utter failure, many deep ponds were quite dry, and water had to be carted for cattle in December.

BASINGSTOKE, MONK SHERBORNE.—The long drought was severely felt, especially on the clay land. No hay crop, and even the second growth of grass was cut off by the scorching heat which prevailed in the middle of August.

HECKFIELD, PARK CORNER.—The driest year recorded in 22 years (18·01 in. on 119 days), the next driest being 1884, with 20·24 in. on 116 days. There were four consecutive months in the spring each with less than one inch. The heat also was the greatest recorded.

SUNNINGHILL, LYNWOOD.—Though the R for the year is little below the average, nearly half of it fell in the last four months. The S.E. gale on December 12th was exceptionally severe, doing much damage.

HUNGERFORD, DENFORD PARK.—In all the months in which we expect growth there was drought and heat, and during the remainder of the summer, except July, the R fell in such small quantities on a parched soil that it evaporated without doing much good.

BRACKNELL, WARFIELD.—During the period of drought, from February to July, storms continually passed round the horizon at about 6 miles off, following the course of the river Thames from Windsor to Maidenhead.

WINDSOR, ROYAL GARDENS.—This will be remembered as not only a dry year, but a remarkably hot one. In 1887 the total R was

·82 in. less but the sunshine was not so continuous nor the temp. so high.

READING, PORTLAND PLACE.—The year opened with hard frost, which lasted with occasional thaw till January 21st, after which open weather prevailed, with much R in February. The year was especially remarkable for the great drought, which continued practically unbroken from March 5th to May 15th, and again from May 21st to June 22nd. July was showery, with a sharp TS on the 12th, the only day in the year when the R exceeded an inch. August after the 4th was hot and dry, with great heat from 8th to 19th. September was also dry till towards the close. October was showery, November rather cold and remarkable for the violent gale from the 16th to 20th; on the 18th it was most tempestuous with heavy S in the evening. December began with hard frost, but on the whole was mild, with heavy gales between the 8th and 20th; the last two days were again frosty. The autumn was generally very favourable to agriculture, and made some amends for the drought of the spring and summer.

READING, EAST THORPE.—R 5·02 in., and rainy days 3, below the average of ten years.

MAIDENHEAD, CASTLE HILL HOUSE.—Rather dry. July and October the wettest months.

LITTLE WITTENHAM.—Exceedingly dry, with three droughts. Although the number of rainy days is not much below the average, the daily falls were very small, over an inch being registered on only two days.

FARRINGDON, THE ELMS.—Two out of the three days in March and all four in April on which R was registered, there was merely damp mist or heavy dew; no actual R falling between March 3rd and May 11th.

DIVISION III.—SOUTH MIDLAND COUNTIES.

SOUTHGATE, THE LAWNS.—Very deficient R and much sun heat, the result being remarkable. No hay crop; mulberries at least 3 weeks earlier than usual, and small fruit a failure.

CHESHUNT COLLEGE.—Exceptionally fine, nearly nine months of summer weather. Notwithstanding the abundant sunshine and high barometric pressure, the leaves remained on the trees longer than usual; strawberries re-appeared and azaleas bloomed in September and October.

ST. ALBANS, THE GRANGE.—R about two inches below the average. Very dry in spring and early summer, the R from March to June averaging only ·75 in. per month, while February, July, October and November were wet, averaging 3·75 in. April was very dry (·14 in.) and October very wet (5·07 in.) The third year in succession, with the second half twice as wet as the first half. The longest period without R was 29 days, ending April 15th.

DATCHWORTH.—Less than two inches of R fell in the four months March to June, and there was scarcely a trace of green in the meadows, the change when R came was marvellous.

BUNTINGFORD, THROCKING RECTORY.—A warm, dry year with more than the usual amount of sunshine. The mean temperature 49°·2, was higher than in any of the previous thirteen years over which observations extend. The chief feature, however, was the extraordinarily dry spring. There was an absolute drought of 30 days from March 17th, and a partial drought of 78 days from February 28th, during which only ·70 in. fell.

SLOUGH, LANGLEY.—Owing to the extreme drought in the spring and summer, 1893 was the worst year for farmers in this district since 1879, when they suffered even more from the R in the spring and summer, the falls being :—

March to September 1879	24·41 in.
,, ,, 1893	5·39 in.

SLOUGH, UPTON HALL.—The summer seemed to commence in the first week of March and ended in the middle of October. The R, however was too deficient, and fruit was small.

CHALFONT ST. GILES.—Great surface drought in the summer, but the wells did not fail.

ADDINGTON.—A very remarkable year both as regards R and temperature. In four months, March, April, June and September, the fall was less than an inch, and averaged ·44 in. In June, July and August the temperature was exceptional on many days, the highest being 92° on August 18th.

WOBURN SANDS.—Very dry ; R about 6·34 in. below the average. March and April, had only ·21 in. and ·15 in. respectively.

NEWPORT PAGNELL.—The fall in March and April was only ·26 in., or less than one-tenth of the average. Unprecedented in the 30 years recorded.

FILGRAVE RECTORY.—R 7·81 in. less than the average of 19 years, and the smallest during that period.

CULHAM.—Though it was a year of drought, the actual R nearly equals, and the number of rainy days exceeds, 1892. From March 3rd to May 16th, only ·10 in. of R fell.

PYRTON MANOR.—R considerably below the average. Total drought prevailed for 30 days from March 17th, and for 16 days from June 5th. In 74 days ending May 16th, ·29 in. of R fell; and in 59 days, ending May 14th, only ·04 in.

OXFORD, CANE END.—The drought of March, April, May and June, ruined all the crops. On May 17th some barley corns were dug up that had been in the ground for 60 days, and were as dry and sound as the day they left the drill.

STANTON-ST.-JOHN'S, WOODPERRY.—The driest year in the memory of man; most disastrous for stock keepers, although the late-planted roots grew wonderfully.

DAVENTRY, FAWSLEY.—1893 will long be remembered as one of the driest and hottest years on record. From March 3rd to May 15th, R fell on only six days, amounting to ·45 in., the result being disastrous as regards hay and grass.

EASTON MAUDUIT.—A peculiarity of the year was the way in which heavy TSS kept away, notably on July 2nd, when a heavy downpour occurred very near. From March 3rd to May 15th, there were 73 days or one-fifth of a year, with one-fifth of an inch of R. Ground very dry at the close, and small brooks scarcely running.

CASTLE ASHBY.—The driest year since the record commenced in 1873; R 17·56 in.; the only other years with less than 20 inches being 1874, 1887, and 1890.

MAXEY VICARAGE.—R 3·39 in., and rainy days 17, less than the average of ten years. The longest dry period was 30 days, ending April 15th, and the longest wet period 16 days, ending October 10th. On only three days did the fall exceed ·50 in., but July 11th was the wettest day since September 1883, 1·79 in. being recorded, of which 1·05 in. fell in 22 minutes.

ASPLEY GUISE.—R 5·46 in. less than the average, 1880—89, the difference from the average for each month and from January 1st to the end of each month being as follows :—

	Difference from the Average. Months.		Total from January 1st.		Difference from the Average. Months.		Total from January 1st.
Jan.	+ ·12 in.	...	+ ·12 in.	July ...	+1·62 in.	...	—2·41 in.
Feb. ...	+ ·56 ,,	...	+ ·68 ,,	Aug. ...	+ ·22 ,,	...	—2·19 ,,
Mar. ...	—1·39 ,,	...	— ·71 ,,	Sep. ...	—1·64 ,,	...	—3·83 ,,
April...	—1·62 ,,	...	—2·33 ,,	Oct. ...	— ·55 ,,	...	—4·38 ,,
May ...	— ·85 ,,	...	—3·18 ,,	Nov. ...	— ·40 ,,	...	—4·78 ,,
June ...	— ·85 ,,	...	—4·03 ,,	Dec. ...	— ·68 ,,	...	—5·46 ,,

TRUMPINGTON.—Remarkable for the drought, which lasted from March 1st to June 12th, during which period R was measured on only 28 days, for although on two days in May 1·02 in. fell, it was not sufficient for vegetation and harvest was nearly a failure. In July, August, and October 11·88 in. of R fell on 48 days, and in the remaining nine months 11·67 in. fell on 101 days.

DIVISION IV.—EASTERN COUNTIES.

UPMINSTER HALL.—General absence of dew in the hot weather, and of fog in the autumn. No TSS to speak of, but some heavy gales. March was superb with hot sun and cold nights. April was fine and hot in the sun, and rather damper. Great evaporation in July, and no dew; trees suffering. October cool and damp.

WALTHAMSTOW, FOREST ROAD.—The best year remembered. Not only was there continuous warmth, but an extraordinary amount of sunshine. The drought was severe, and the ground was cracked for some feet downwards on hard clay soils. R was very unevenly distributed, February and October having considerably above the average, and March, April, May, June, August and September much below. The summer practically commenced early in March, and lasted without a break until October.

WALTHAMSTOW, PROSPECT HILL.—March, April, May and June were remarkably dry. The R exceeded the average only in February, October and December, and the total for the year shows a deficiency of 5·38 in.

BILLERICAY, BURGHSTEAD LODGE.—A remarkably fine year. Especially dry in March, April, May, June, August and September, and unusually sunny from the end of February to the end of December. February had an inch more R than usual. The total fall is 5·50 in., or 23 per cent., less than the assumed average. The fall exceeded ·50 in. on only five days.

CHELMSFORD, BROOMFIELD.—Very severe drought prevailed during the spring and most of the summer, causing extremely light crops of almost every kind.

LEXDEN, HOME FARM.—An absolute drought was experienced from March 18th to April 15th, 29 days; and there were two partial droughts, 80 days ending May 20th, with ·75 in. of R, and 31 days ending June 21st, with ·21 in.

BRAINTREE, BOCKING, FENNES.—R (18·40 in.) almost exactly 75

per cent. of the mean of 40 years. Every month had less than the average, except February, November and perhaps October. Only 4 years have been drier since observations began in 1851, viz. :—

1854	17·80 in.	1884	17·58 in.
1864	16·94 ,,	1887	17·24 ,,

The four months March to June gave a total of 1·75 in., which is less than two-thirds of the fall in the previous driest four consecutive months since 1851, and less than the fall of any period of three months in the same years.

IPSWICH, BISHOP'S HILL.—1893 will be long remembered as the warm, sunny and dry year, with an unusual amount of pleasant weather. Total R 2·87 in. less than the average. January, February, July and November had an aggregate excess of 4·15 in., the two latter months being very wet. The other eight months were all deficient, March, April June and September being very dry.

HAWKEDON RECTORY.—February was very wet, but on March 2nd the dry weather set in, with bright sun and cloudless sky, which practically lasted till June 19th, followed by nice rains till just the end of August, then there was another dry period of a month. The remainder of the year was about normal. Many very hot days in the summer. An absolute drought of 25 days ending April 15th, and a partial drought of 76 days ending May 16th.

BURY ST. EDMUNDS, WESTLEY.—R 2·12 in. below the average of 37 years.

DISS.—The year commenced with a fortnight of hard winter weather, after which nearly the whole year was magnificent, but the long drought in spring and early summer gave a scanty haysel and harvest. Heavy gales, generally with bright skies, prevailed in December. R about 4·50 in. less than the average.

GELDESTON, [BECCLES].—The smallest R recorded, being 6·74 in. below the average, and a few hundredths less than both 1873 and 1887. Partial drought from March 2nd to May 20th inclusive.

YARMOUTH.—In the four months, March to June, only 2·66 in. of R fell. There were absolute droughts of 17 days from March 19th, 14 days from April 17th, and 15 days from May 2nd. In the 80 days ending May 20th only ·53 in. of R fell.

YARMOUTH, MARKET PLACE.—The smallest R recorded, nine months having a deficiency, and the total being 8·02 in. below the average of 25 years. An absolute drought of 17 days ended on April 15th, and a partial drought of 80 days, with ·53 in. of R, on May 20th.

NORWICH, ESSEX STREET.—Land was very wet till the first week in March, when drought set in, preventing the growth of hay and corn. July and November were very rainy, with a severe tempest on July 12th. The R of the first six months amounted to 7·54 in., and during the last six to 15·39 in.

AYLSHAM, WOODGATE.—The great feature of the year was the extraordinary drought which commenced on March 3rd, in which month only ·48 in. of R fell, and only ·15 in. in April. December was noted for the heavy gales and extreme and sudden variation of pressure.

NORTH WALSHAM, WORSTED.—A fine year, with abundant sunshine.

HOLT, LETHERINGSETT HALL.—The driest summer remembered, especially in April and September. The early part of August very hot.

DIVISION V.—SOUTH WESTERN COUNTIES.

DONHEAD ST. MARY, CHARLTON HOUSE.—The spring drought was ruinous to the hay crops. Between March 17th and May 13th only ·12 in. of R fell; between March 17th and June 21st 1·63 in.; and between May 24th and June 21st ·29 in.

SALISBURY, ALDERBURY.—Total R seven inches less than the average; March, April, May, June, and August being very dry.

MERE DOWN.—The extraordinary dry spring caused an almost total failure of the hay crops, and it is remarkable that there has been a dearth of grass for two years in succession, without parallel since 1844. The spring corn came up irregularly and was a scanty crop. From an agricultural point of view the most disastrous season since the wet year 1879. Store stock was at times unsaleable.

BISHOP'S CANNINGS.—The marked feature of the year was the small R in March, April, May, and June. On 7 out of the 8 days on which R fell in March, the quantity was less than ·10 in., scarcely wetting the ground, and there was an absolute drought from March 18th to April 30th. In June R fell on 12 days, but less than ·10 in. on 7 of them; on the 14th 1·35 in. fell, but by the evening the garden earth was scarcely moist to the hands.

MARLBOROUGH, MILDENHALL.—The greatest drought ever recorded, the ·05 in. of R in April was more an accumulation of dew than anything else.

BROAD HINTON.—An exceptionally dry summer and great

scarcity of water in consequence, yet the total R and number of rainy days are above the average of ten years.

SWANAGE, THE BANK.—From February 28th to June 23rd only ·99 in. of R fell, and there were two periods of absolute drought, 37 days from March 17th, and 35 days from May 19th. The fall on July 15th, 1·84 in., was the largest in 24 hours since the record commenced in 1881.

WEYMOUTH, LANGTON HERRING.—Memorable for the continued drought in the spring, only 2·19 in. of R falling in the four months, March to June. The driest year for 19 years, except 1887, and the hottest year since 1872, the temp. being above the average in every month except January and November.

BRIDPORT, MELPLASH.—Corn cut at two places near here on June 30th, and a field of wheat in sheaf on July 3rd. In 1826 oats were cut on June 27th at Hindley in Lancashire, and barley near Bridport on June 30th.

WIMBORNE MINSTER, CHALBURY.—In only two of the last 28 years has the R been less than in 1893, namely 1870 with 23·85 in., and 1887 with 22·46 in.

WINTERBOURNE STEEPLETON.—The hay crop was an entire failure owing to the long spring drought, and the corn crops yielded only about half the average. Total R 2·92 in. more than last year, but very unevenly distributed.

IVYBRIDGE, LANGHAM HILL.—R 4·07 in. more than in 1892, but rainy days 10 fewer, and the smallest number for 6 years. February was exceedingly wet and rough. The drought in spring was broken by a considerable R on April 22nd, and by five wet days in the middle of May, during which two inches fell. The weather from March 4th to July 7th was magnificent, the temp. rising above 70° on 14 days in April, and above 80° on 6 days in June. During July there was an unusual amount of T and L. August was very fine and hot. October and December were wet, and a series of very violent gales set in on November 18th, and lasted (with intervals) to December 20th.

PLYMPTON, HEMERDON.—A very remarkable year in consequence of the great drought, but Devonshire suffered much less than other parts of England, owing to the R which fell in May and July, which enabled good second crops of hay to be gathered, and saved the green crops. The springs were very low, the heavy R in February alone prevented even greater distress.

TORQUAY, CARY GREEN.—From March 1st to April 22nd R fell on only 6 days, the total during that time being ·13 in. There were four absolute droughts :—

March 17th to March 31st.	April 29th to May 13th.
April 1st to April 21st.	May 30th to June 12th.

BUCKFASTLEIGH, BOSSEL PARK.—An unusually dry and hot summer.

TEIGNMOUTH, WOODLANDS.—Long continued deficiency of R from the end of February to the middle of June, and again in August and the first half of September, but the total slightly in excess of the fall in 1892.

MILTON ABBOT, ENDSLEIGH.—Dry on the whole. The springs were very low, and even at the close many had not recovered from the drought. The R in December was very heavy, and ran off instead of soaking into the land.

POLAPIT TAMAR [LAUNCESTON].—Total R 4·06 in. less than the average. The first 6 months were drier than usual, only 4·01 in. falling during March, April, May and June.

ROUSDON [LYME REGIS.]—A dry year, but the total R is not remarkable, as 1887 and 1892 both had less. The noteworthy point was the abnormally dry period, March to June, the R of those four months being only 1·99 in. ; this is believed to be unique in this part of the country.

AXMINSTER, GREAT TRILL.—R 1·97 in. above that of 1892, but 1·41 in. below the average of 10 years. There were droughts of 26 days from March 17th, 16 days from April 30th, and 22 days from May 31st.

PETROCKSTOW, HEANTON SATCHVILLE.—During March, April, May and June there was great scarcity of water. Brooks and springs were very low, and November was well in before they gained their normal level.

WITHERIDGE, BRADFORD COTTAGE.—From January 6th to 16th there was S on the ground, 3 inches deep on the 8th. Owing to the drought from March to June there was great scarcity of grass. In 35 days, ending April 21st, only ·05 in. of R fell (on April 1st). The weather in the latter half of March was summerlike.

SOUTH MOLTON, ROSE ASH.—Very fine and dry during the early part of the year, but heavy R in July saved the grass crop for a late cutting. The end of December was fine and mild.

BIDEFORD, HORWOOD.—The total R is among the heaviest re-

corded here, but number of days on which it fell is the lowest in 20 years with the exception of 1887.

LYNTON, PARRACOMBE.—In spite of the dry summer, the total R exceeds that of 1892 by over six inches. The longest drought was from March 18th to April 22nd, 35 days. S fell on only two days.

PENZANCE, PENLEE.—R about ten inches less than the average. The slight fall during March, April and May was remarkable.

PENZANCE, ST. CLARE.—R 11·26 in. less than the average of 20 years. The smallness of the fall in the four successive months, March to June, being unprecedented.

REDRUTH, TREVINCE.—R 7·85 in. below the average of 6 years.

ST. AGNES.—R four inches, and rainy days 18, more than in 1887.

LISKEARD, DEAN TERRACE.—Very dry in March, April, May, and June, causing loss of grass and failure of springs. The total R, however, was greater than in 1892.

CREWKERNE, BINCOMBE HOUSE.—R 10·86 in. below the average of 20 years. Dry periods occurred from March 17th to May 15th, and May 24th to June 21st. January was mild at the close with hard gales from S.E. to S.W.; February also mild with S.W. gales and very wet; March, April and May were very dry and frequently cloudless, with much N. and N.E. wind. From June 16th to 19th was very hot, the temp. rising to 88°; July was stormy and cool with sharp TSS; August and September were hot and dry. Sharp frosts occurred at the end of October, and strong N. to N.E. gales with S at the end of November, and December was wet and stormy.

YEOVIL, WEST COKER.—Remarkable for sunshine and long continued drought, which caused a general failure of the hay crop; and for the very few TSS; yet the R exceeded that of 1887, 1889 and 1892.

ILMINSTER, WHITE LACKINGTON.—Dry and hot, R 7·50 in. below the average of 22 years. During the last 7 years the average has been exceeded only twice, and the remaining 5 years show an aggregate deficiency of 24 inches.

WELLINGTON.—In the first 6 months only 9·95 in. of R fell, and in the 4 months, March to June, only 2·41 in.

TEMPLE COMBE, STOWELL RECTORY.—Unusually hot and dry, the temp. having been above the average in no fewer than 9 months, while the total R is about four-and-a-half inches less than the average.

GLASTONBURY, STREET.—Fine hay crops were secured on the

"levels," but at 100 ft 2 tons were secured off 20 acres by careful hand-cutting and raking. Wells nearly all dry in the summer and also the smaller streams, the only running water in the district being the river Brue. The Godswell spring in the High-street, lately piped down the village for about half a mile, maintained its flow. Hawthorn was in bloom on April 10th; wild rose the first week in May. Oats reaped on July 1st and among the Mendips about June 17th. Michaelmas roses and early chrysanthemums in bloom by the end of June.

FROME, ROCK HOUSE, MELLS.—R 8·83 in. less than the average of 20 years. An excess of R in February. Almost continuous drought from the beginning of March to the middle of May, the small quantity of R evaporating nearly as soon as fallen, and another drought from May 23rd to June 22nd.

E. HARPTREE, HARPTREE COURT.—R 6·64 in. less than the average of 11 years. March, April, May and June were remarkably dry, only ·40 in. of R falling in 70 days from March 4th. Absolute drought occurred for 15 days from March 17th, and for 14 days from April 2nd. Splendid crops of grass in September after the R in July.

WESTON-SUPER-MARE, WORLE VICARAGE.—Remarkable for the long periods of partial and absolute drought; from March 3rd to May 13th only ·19 in. of R fell, and from May 23rd to June 22nd, only ·16 in. The R on October 17th (2·18 in.) was the heaviest recorded in 12 years.

PAULTON.—Very dry, and there was a total absence of TSS except on July 13th, when there was quite a tropical storm for 25 minutes.

DIVISION VI.—WEST MIDLAND COUNTIES.

BRISTOL, THE GROVE.—Very fine and hot in spring; the temp. reached 80° on April 21st, and a few strawberries ripened in the last week, five weeks before the usual time, and there was a second crop of strawberries and raspberries in September and October. There were two periods of absolute drought: March 17th to 31st, and April 17th to May 1st; and a partial drought of 75 days, with only ·52 in. of R, from March 1st. February, July and October were the only months with a fall above the average.

CLIFTON, PEMBROKE ROAD.—Total R 6·81 in. below the average of 36 years; every month deficient, except February, July and October.

COTE HOUSE.—Not so dry as either 1892, 1890, or 1887.

FRAMPTON COTTERELL.—The spring was very dry, but the total R for the year is quite up to the average.

LYDNEY, CLANNA.—Springs lower than ever remembered.

LYDNEY, PRIORS MESNE.—The drought and heat were so great during the spring and summer, that the hay crop was only 30 per cent. of the usual amount. The fruit crops did exceedingly well.

FURTHER BARTON.—The year was chiefly remarkable for the dry, warm spring and summer, fine weather continuing late into the autumn. The sudden cold spell of short duration in the early winter was also noteworthy.

STROUD, STANLEY PARK.—There was a partial drought of 75 days, with ·37 in. of R, from March 1st, which included three absolute droughts of 14 days, viz:—from March 18th, from April 2nd, and from April 17th; there was also a partial drought of 30 days from August 23rd, with ·22 in. of R.

HATHEROP RECTORY.—R 10·41 in. less than the average of 23 years, ·59 in. less than 1887, and the smallest fall in any year.

BIRDLIP HILL.—A year of drought, nine months showing deficient R, and the total only 74 per cent. of the average of ten years. Absolute drought for 30 days from March 16th, and a partial drought of 73 days from March 4th, with only ·10 in. of R.

WITCOMBE RESERVOIR.—Very dry, only ·94 in. more R than in 1892, which was the driest year of the 30 recorded.

GLOUCESTER, LOWER BARTON STREET.—Another dry year, the R being 4·90 in. below the average. In 71 days from March 4th only ·07 in. of R fell, but the drought practically lasted until the end of September, and the usual supplies of water failed. It is said to have been the most severe drought since 1844.

BOURTON-ON-THE-WATER.—Omitting July, drought lasted from March 1st to the end of September. During the 72 days ending May 14th, only ·15 in. of R was measured.

CHELTENHAM, NAUNTON PARK VILLAS.—Remarkable for great drought, unusual warmth and abundant sunshine.

BRYNGWYN.—A very fine dry year, remarkable for much sunshine and constant high temp.

LEDBURY, PUTLEY COURT.—From an agricultural point of view, the worst year on record, far worse than 1879. The drought set in early in March, and no R penetrated three inches into the pastures till December 12th, and even then the land drains, 3 ft. 6 in. deep, did not run.

CANON FROME.—R 6·73 in. less than the average of 16 years. In 1887 and 1890 less R fell, but falling at more suitable periods, the drought was not felt so much. Hay crops short, but hops and apples very good.

HEREFORD, BURGHILL.—In September the meadows were absolutely brown and bare throughout the month, in marked contrast to counties north and south. Springs still very low at the close.

WEOBLEY, DILWYN.—The drought was felt more in August, September and October than at any other time. An absolute drought of 30 days terminated on April 15th, the longest recorded, and a partial drought of 75 days, with ·65 in. of R, ended on May 14th.

PEMBRIDGE, MARSTON.—R 4·20 in. less than the average of 14 years. The hot, bright sun of most of the year dried up the R almost as soon as it fell, and there was great scarcity of water during the last five months ; streams lower than ever remembered.

CHURCH STRETTON, PREEN MANOR.—The finest and driest summer, with the greatest amount of sunshine, ever remembered. In the 65 days ending May 13th only ·77 in. of R fell on 9 days.

MIDDLETON-IN-CHIRBURY.—All wells and springs very low, additional ones failing one after another to the very end of the year. Hay crops short.

WOLVERHAMPTON, TETTENHALL.—R only 74 per cent. of the average of 20 years. Partial drought from March 4th to April 15th. The average amount of cloud in April was only 2·8.

BURTON, SHOBNALL.—R 6·70 in. below the average of 18 years. There was an absolute drought of 17 days from June 5th. S or H fell on only three days.

TEAN VICARAGE.—R about 75 per cent. of the average. 1884, 1888 and 1890 were nearly as dry, and 1887 had 4·33 in. less R.

LONGTON, THE MEIR.—R 2·43 in. below the average of ten years.

NEWCASTLE, MADELEY.—R 5·02 in. below the average of six years.

LEEK, WALL GRANGE.—R 6·35 in. below the average of ten years.

EVESHAM, LANSDOWNE.—A very dry year ; March, April and May were practically one long drought.

EVESHAM, THE DRIFT.—Although the R is only ·01 in. less than in 1892, the want of R was felt much more severely. All crops, excepting fruit, were very short or a total failure.

MADRESFIELD RECTORY.—R 6·37 in. below the average.

REDDITCH, PROSPECT HILL.—The R of March and April was phenomenally small, that of March being 1·14 in., and of April 1·08 in., below the average of 13 years, and both without precedent in that period.

ALCESTER, RAGLEY HALL.—R 5·40 in. below the average of ten years, falling mostly at night. Twelve days had a fall of ·01 in., and 19 days of ·02 in.

ALCESTER, RAGLEY GARDENS.—January was dull and cold, with frequent S showers, and February dull and wet. March, April and the first half of May were very dry, with tropical sunshine, causing a drought that proved disastrous to many crops. No hay was made, and grass was more plentiful in November and December than in June and July. July was the wettest month. In the first six months 8·52 in. of R fell, and in the last six months 11·45 in. No TSS, and very little frost or S.

KENILWORTH, THE SPRING.—The smallest R since observations commenced in 1883, and 4·80 in. less than the average. There was absolute drought for 30 days ending April 15th, and for 16 days ending June 21st.

COVENTRY, PRIORY ROW.—R the smallest recorded in 27 years. The spring was very early and genial, and the summer the most beautiful remembered. The long drought set in on March 4th, and through March, April and May there was almost continuous sunshine. A TS on May 17th, and heavy showers on 19th, yielded nearly two inches, and prevented absolute drought, but the ground remained very dry and parched until October. The hay crop was mostly a failure, but wheat was fairly good, and harvest very early. The heat in July and August exceeded that of any year for long previous.

SUTTON COLDFIELD.—R remarkably small, being 8·51 in. less than the average of four years, and 5·08 in. less than the smallest of any of those years.

DIVISION VII.—NORTH MIDLAND COUNTIES.

BARKBY.—Great scarcity of water, especially during March, April and June. Hay crops about a quarter of the average. Intense heat during the second and third weeks of August.

ROTHERBY HALL.—R 5·75 in. below the average of 25 years, but ·59 in. more than the fall of 1890. No R fell in the 29 days ending

April 15th or in the 17 days ending June 21st. Frost occurred in every month except July aud August.

UPPINGHAM, WEST DEYNE.—In 1884 the number of rainy days was one less, but the total R was 1·12 in. more. The only month of the year with more than the average R was February.

KETTON HALL [STAMFORD].—An exceptionally dry and hot year, and in this part scarcely any hay was made, and corn, straw, &c., were only half crops. Autumn fruit was good and abundant. R 10·34 in. below the average. January was changeable and dull; February mild and wet; March, April and May were very dry; June was not quite so dry as May; July was showery, but the R was below the average; August was dry and vegetation suffered very much; September was bright, dry and warm; October fine and mild; November showery and dull and December showery.

TOLETHORPE HALL [STAMFORD].—A splendid season till the end of March, but the effect of the subsequent months will be felt for a very long time.

LONG SUTTON.—Observations commenced in 1874, and only three years have had less R than 1893, viz.: 1874, 1884, and 1887. Many farmers on light soils did well, but it was ruinous upon heavy clay.

SLEAFORD, BLOXHOLM.—R less than the average and water very scarce; a fair supply in the deep wells, but the shallow wells were empty to the close; ponds and ditches dried up.

LINCOLN, DODDINGTON.—The year was remarkable for deficient R throughout; in 5 months less than an inch fell and absolutely none fell from March 17th to April 15th, May 3rd to 15th, and June 5th to 18th.

LOUTH, GOSPELGATE.—R 7·01 in. below the average.

LOUTH, WESTGATE.—The driest year of the last 22 except 1884, when 1·41 in. less fell.

GRIMSBY, AYLESBY.—Although the total R is more than in two or three years of the last 20, the effect of the spring drought was much more serious than ever known before.

SAXBY RECTORY.—The long dry summer which so disastrously affected agriculture in the south-west of England was comparatively harmless here. The cereal crops were very good; the hay crop was small but excellent, and the fruit crop was magnificent. The summer was of fully 7 months duration, and most enjoyable, with equable temp. throughout.

BURTON-ON-STATHER VICARAGE.—Great absence of R from March to June.

NOTTINGHAM, BEESTON FIELDS.—The year will be remembered for its excess of temp. and sunshine and deficiency of R, the total fall being 6·89 in. less than the average; from March 17th to April 15th only ·03 in. fell, and from June 4th to 21st none. February was the only month with any material excess, while March, April, June, August, and October, were each more than an inch deficient. The year had the highest mean temp. of the 13 recorded; 10 months showing an excess.

STRELLEY HALL.—R 9·44 in. below the average, but not so dry a year as 1887, and the number of rainy days not small.

SHELTON RECTORY.—The drought of 1893 was in two distinct periods, before and after July; the first ruined the hay crop and the second injured the after-math and the root crops. It is rare to have four months in a year with less than an inch of R in each. The total fall exceeds that of 1887 by ·59 in.

HUCKNALL TORKARD, FORGE MILLS.—Notwithstanding the long periods of drought during March, April, May, and June, the total R is not so small as in 1887 (16·37 in.) and in 1890 (19·15 in.)

SOUTHWELL, GRANTS.—R 7·65 in. below, temp. 2° above, and amount of sunshine 360 hours more than, the average; by far the sunniest year recorded since observations commenced in 1879.

DERBY, ELVASTON.—The chief characteristics of the year were the extraordinary heat and drought of the spring and summer. Although the period must rank amongst the driest on record, it is doubtful if any preceding seasons have eclipsed it for brilliancy and loveliness. The temp. of every month shows an excess, more or less. The hay harvest was very deficient, but the corn yield was very good. February, May, July and December were the only months with R approaching the average.

HAZELWOOD, HOLMSIDE.—R 3·77 in. more than in 1887, but in spite of this the springs were far lower at the close than they have been known in the memory of man. This may be accounted for by the fact that after February, though a good deal of R fell at times, the ground was so hot and dry that it never penetrated far below the surface, but evaporated.

HAZELWOOD, CHEVIN.—R 4·01 in. below the average of 8 years, but 3·35 in. more than in 1887.

DIVISION VIII.—NORTH WESTERN COUNTIES.

ECCLESTON.—R 4·42 in. less than the average of five years, and 10·11 in. less than that of 1892; R fell on only ten days during March and April.

CHESTER, CHRISTLETON HALL.—The year was exceptional for the long period of bright weather, with freedom from injurious frosts, and for the unusually protracted drought. March and April were very fine, particularly free from frosts, and the driest months of the year. From March 18th to April 15th only ·04 in. of R fell. Crops were about six weeks earlier than usual, and pastures were burnt up.

NESTON, HINDERTON.—R 23 per cent. below the average of 24 years. The spring drought lasted from March 7th to June 21st, 107 days, with only 2·69 in. of R.

FRODSHAM, FOX HILL.—Remarkably dry, especially during March and April. No TSS, and very few thunder showers. R about ten inches less than the average of ten years.

WILMSLOW, SOUTHSIDE.—A dry spring and remarkably fine and hot summer, with very inadequate R supply till July, the drought lasting from March to June inclusive.

HADFIELD, MILLBROOK.—The remarkable drought set in on March 4th, and continued until May 16th, and the R was slight until September. Much electricity, and more sunshine than was ever known before.

AIGBURTH, KELTON.—R 5·03 in. below the average of ten years, and excepting 1887, the smallest in 21 years. In the first six months only 8·03 in. fell, and in a period of 123 days ending July 7th there were 96 days upon which no R fell. In 1883 the average R for the previous ten years exceeded 35 inches, but in 1893 the average for a similar period has fallen below 30 inches.

MANCHESTER, FALLOWFIELD.—March, April, May and June were remarkably dry, and water was scarce till September.

MANCHESTER, ALEXANDRA PARK.—A remarkably fine summer, beginning early in spring, and continuing well into autumn.

BLUNDELLSANDS, PARK CORNER.—A very dry year, with the least R since the record commenced excepting 1887, and also the fewest rainy days, excepting 1876.

GAWTHORPE HALL.—Drought was not felt so much here as in other districts, owing to heavy TSS in May, June, July and August.

ECCLESTON, ELSWICK LODGE.—R below the average, especially in the first half of the year. Temp. above the average in every month except January and August, the mean for the year being 2°·6 above the average of 21 years, and the highest in that time.

ST. MICHAEL'S-ON-WYRE VICARAGE.—The driest April recorded. The mean temp. of March, April, May, June, July and August was the highest registered for these months. On June 18th the temp. reached 87°·2, the highest ever recorded here. The harvest was very early, and the crop of apples was wonderful.

CLITHEROE, DOWNHAM HALL.—R about the average ; a deficiency of about four inches occurred in the first half, and about the same excess during the latter half, consequently there was scarcity of water in the spring, and pastures were rather burnt.

ARKHOLME, STORRS HALL.—Very dry from the middle of March to the middle of July. A warm spring and summer, with much sunshine. A deficient hay crop, but a fine and early harvest. R not much below the average.

CARTMEL, HOLKER.—On the whole a most enjoyable year, with some very dry spells and great heat ; from March 18th to May 16th rather less than an inch of R fell ; June and July were hot, and high temp. prevailed in the last three weeks of August. There were copious showers during July and August, which effectually dispelled all traces of drought.

GRANGE, PIT FARM.—January dry, February wet, the spring and summer dry and warm, and the latter part of the year, except November, very rainy. On five days in April the shade temp. rose above 70°, and there were 61 such days in the year, or nearly twice the average number.

CARTMEL, BROUGHTON HALL.—R slightly below the average. The remarkable drought in March, April, May and June reduced the hay crop, but the " after grass " was plentiful, owing to steady equal R in July, August and September.

SEATHWAITE VICARAGE.—An almost unprecedentedly early spring, with more or less drought from the middle of March to the third week in July, followed by more than usual R for the rest of the year, with a steady mild temp. throughout December. The R in February was excessive, 3·80 in. falling on the 13th.

DIVISION IX.—YORKSHIRE.

WATH-UPON-DEARNE, CHAPEL STREET.—R 3·95 in. less than the average of 30 years. From March onwards the summer was the pleasantest and sunniest for many years.

WENTWORTH CASTLE.—R 5·41 in. less than the average of 17 years.

DONCASTER, MAGDALENS.—R about three inches below the average of 30 years; one-third of the total fell in 12 days. Harvest began on July 20th, fully a month earlier than usual.

MELTHAM, HAREWOOD LODGE.—R 18 per cent. below the average of 12 years and the least in that period excepting 1887. January, March and April were very dry; July showery; February and the first part of December very wet; March, April and December were warmer than any of the corresponding months for 15 years; August was the hottest month of the whole period, and the year was nearly one degree warmer than 1884, to which year it bears a remarkable similarity in many respects. TSS were decidedly frequent, but of slight intensity, except that of July 3rd. In September the largest reservoir of the Huddersfield Corporation water works, holding 1,000,000,000 gallons, touched the lowest point recorded since it was opened, but was only very slightly lower than in 1884.

HUDDERSFIELD, DALTON.—R 5·83 in., and rainy days 8, less than the average of 28 years.

WAKEFIELD, ALVERTHORPE HALL.—After an average winter the early spring set in with great mildness and beauty. Very little R fell in March and April; that of the latter month falling chiefly at night. May was fine, warm and thoroughly enjoyable and June was rich with blossom. The end of the year was stormy, with some terrible gales.

WAKEFIELD, STANLEY GRANGE.—Exceptionally fine; R 3·04 in. below the average of 4 years.

SOWERBY BRIDGE, HAUGH END.—The summer was exceptionally dry, and the R of the year was 8·00 in. below the average of 25 years. R fell on only 6 days in April; February was the wettest month. On August 18th the max. temp. was 86°, and in July and August was 80° or upwards on 8 days. Frost was recorded on only 48 days.

HEBDEN BRIDGE.—In the six months, March to August, only 15·40 in. of R fell, and from March 4th to May 15th only 1·90 in.

HARROGATE, BOG VALLEY GARDENS.—R 2·92 in. less than the average of ten years.

KNARESBOROUGH, FARNHAM.—R 7·24 in. less than the average of 20 years, but 1·37 in. more than the fall of 1887 and more than in 1874 also. In the four months, March to June, only 4·50 in. of R fell.

SETTLE, THE TERRACE.—Very dry from March 1st to July 8th.

SEDBERGH, BRIG FLATTS.—Very fine with more sunshine than for many years, but the hay crops were light. The wet February was advantageous, being followed by dry months.

BEVERLEY, ALEXANDRA TERRACE.—R six inches less than the average of ten years. Water was scarce and many wells failed. Hay and straw light, but every other kind of produce abundant and excellent. A destructive gale from the 16th to the 19th of October.

DRIFFIELD, YORK ROAD.—R below the average in every month except February and November, March and April being specially dry and bright. The amount of sunshine was much in excess of the average. Rainy days 19 less than the average of 5 years.

THIXENDALE.—The year began with very severe weather, and was marked by long rainless periods. A remarkably early harvest followed. The last two months had very varying weather, and on the whole were unseasonably mild.

MALTON, NORTON.—Low temp. was prevalent early in January; magnificent weather in March and April, with clear skies and only ·13 in. of R in 42 days. The amount of R in May and June was small, but a good fall in July saved the hay crop. August and September were fine and hot, from August 12th to 18th being the hottest week on record. October was fair and November and December wet. Total R about five inches below the average.

AYSGARTH VICARAGE.—S yielding nearly 2·00 in. fell in February, chiefly on 25th, 26th and 28th. Drought prevailed in March and continued through April, the hay crop being saved by a fall of 1·17 in. on May 17th. Heavy TSS occurred on June 3rd and 4th, and great heat from Aug. 10th to 18th. October was remarkably sunny, nearly all the R falling at night. December was wet till Christmas Day, remarkably fine and mild after.

LEYBURN.—The least R in any year since 1873, when 5·44 in. less fell.

LEYBURN, BOLTON HALL.—A warm, sunny summer, with nice rains when drought prevailed elsewhere. Moderate R and high temp. during the autumn months.

INGLEBY MANOR.—The warmest for many years, and R four

inches below the average. The spring was very dry and warm, the trees coming into leaf quite three weeks earlier than usual. July was cool and showery, the autumn very dry and warm. At the end of November and beginning of December it was very stormy, but fine and mild weather occurred at the end of the year.

FORCETT PARK.—Altogether a fine year, with temp. above the average. R 6·71 in. below the average of 16 years.

GUISBOROUGH, HUTTON HALL.—The least R since 1873, when 1·43 in. less fell.

DIVISION X.—NORTHERN COUNTIES.

DARLINGTON, BRINKBURN.—Very severe at the beginning of the year, with a good deal of S, but one of the finest years on record until the middle of September, when a sudden change occurred, with heavy S on the 23rd.

WHORLTON.—Most changeable; very dry and warm in spring and summer, dull and warm in autumn.

WITTON TOWER.—R below the average, and the smallest fall in ten years, with the exception of 1887.

WEST HENDON HOUSE.—R 6·60 in. below the arithmetical average, and 6·34 in. below the geometrical mean of 30 years, and the smallest in any year during that period, with the exception of 1884. July 8th was the only day when the fall reached one inch. March was the month in which there were fewest days on which it rained or snowed at all; still, there were 12 such days, although on only seven was the amount measurable. April was the driest month of that name since the record commenced, the fall being only ·48 in.; still it rained on 17 days, on eight of which there was a measurable amount. S fell on 27 days, the max. depth being five inches on January 7th. July and November were very cloudy months; there was, however, a great scarcity of overcast days; with the exclusion of cirrus, there was an unusual period of three consecutive days (21st, 22nd and 23rd) in March absolutely cloudless. From August to November the atmosphere was considerably clearer than the average.

GATESHEAD, EIGHTON COTTAGE.—R 5 15 in. less than the average.

HALTWHISTLE, UNTHANK HALL.—An early spring and an exceptionally hot summer. Drought did not extend to Northumberland.

BELTINGHAM VICARAGE.—R ·86 in. above the average.

NEWCASTLE, THE QUARRIES.—R 5·18 in. less than the average of 25 years, and the driest year since 1887, but 1873, 1874, 1884 and 1887 all had smaller falls.

NEWCASTLE, TOWN MOOR.—Total R the smallest since 1873, when ·30 in. less fell.

ROTHBURY, CRAGSIDE.—The least R for 25 years; March and October, usually wet. were the driest months of the year, with ·27 in. and ·74 in. of R respectively.

PAWSTON.—The R of the first six months was only ·80 in. less than the average, and drought was not severely felt, as R fell in the middle of April and the latter half of May, though the total fall in those months was only 1·45 in. The longest partial drought was 44 days from March 2nd, with ·41 in. of R.

MILLOM, LEYFIELD.—The driest year since observations commenced in 1890, but this district was not inconvenienced by drought, as there were refreshing showers. In 28 days, ending April 15th, only ·04 in. of R fell.

ULPHA VICARAGE.—The year throughout was most favourable, as the dry spring suited this district.

BRAYSTONES.—R 2·17 in. less than, and evaporation one inch more than, the average of 29 years.

WHITEHAVEN, IRISH STREET.—R 1·89 in. below the average of 17 years

KESWICK, SHU-LE-CROW.—A singularly mild autumn, with no frost till the last three days of October. From March 17th to April 28th R fell only on March 31st and April 16th and 17th to a total amount of ·39 in. It was rainless also from June 9th to 21st.

COCKERMOUTH, BROUGHTON GRANGE.—A wonderfully fruitful year, the only crop to suffer being hay. The heavy rains in the middle of May and on June 22nd and 23rd prevented any material damage from drought. Total R very little below the average of 20 years.

BLENCOWE SCHOOL.—R 4·59 in. less than the average of 20 years, but in February, June, August, October and December the falls exceeded the average. Droughts occurred from March 17th to 30th, April 1st to 15th, and June 9th to 21st. Very little T except early in July.

BRAYTON HALL.—The year, though dry, was in the north of England not nearly so dry as in the south, and the crops were, to a

considerable extent, saved by the opportune slight R in April, May and June, many heavy showers, such as those on April 15th and 16th, May 17th and 18th, and June 4th, 22nd and 23rd, occurring just when most wanted. December was mild.

BRAMPTON, DENTON HOUSE.—The year was characterized by absence of heavy R, the greatest in 24 hours being ·76 in. The early part was dry, especially April.

KENDAL, NATLAND PARK.—A beautiful year. Westmoreland did not suffer much from drought, though more R was wanted in June. R 5·08 in. less than the average of six years.

APPLEBY.—R three inches below the average of 12 years. Many droughts occurred in spring; 10 and 14 days in March, 15 and 10 days in April, 13 days in May, and 14 days in June.

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

MARSHFIELD, LLWYNARTHAN.—The R from March to September inclusive, was 2·52 in. less than in jubilee year, March, April and June being very dry, but the total R exceeded that of 1887 by 6·03 in., and the rainy days by 19.

CHEPSTOW, THE MOUNT.—There were 40 fewer rainy days than in 1892. The longest drought was 30 days ending April 15th. On one day more than an inch fell, and on ten days half an inch or more.

LLANFRECHFA GRANGE.—Very little R in March, April and June, hence spring crops and hay were very short, but roots recovered in July and August. The summer was remarkably fine and hot.

ABERGAVENNY, DYNE HOUSE.—The first week of January was cold, and deep S fell on the 6th and 7th. The deficient R in March, April and June, and in a less degree in the autumn was much felt. Trouble was great at the Joint Counties Lunatic Asylum, the normal consumption of 40,000 gallons of water per diem being reduced to 6,000. The R of December did not fully restore the springs.

LLANVIHANGEL COURT.—Although the R exceeded that of 1890 and 1892, the district suffered much from drought, more as regards springs and wells than vegetation. Temp. generally very high, with a large amount of sunshine. Great absence of gales till November and December.

COWBRIDGE, FONMON CASTLE.—Although the R was 5·82 in. above the average of 9 years, the most prolonged drought remem-

bered occurred from March 16th to April 16th, no R being registered in the 32 days ; in 70 days, from March 5th, only ·32 in. fell, and in 47 days, from May 22nd, only ·53 in. February, October and December were unusually wet.

OYSTERMOUTH, NEWTON.—The year began with hard frost, followed by mild temp. and frequent gales till March ; then dry winds with hardly any R, prevailed till the middle of May, the ground cracking with drought. Ripe strawberries were picked in April. June was exceptionally dry, with very hot sun and a violent TS on the 14th, a woman being killed by L at Gorseinon. Some heavy showers fell in July, but not enough to penetrate the soil. August and September were changeable and colder, violent storms alternating with fine weather. November and December were mild and fine generally, with occasional violent storms of wind. The mildest Christmas ever recorded.

NEATH, FAIRYLAND. A phenomenal year as regards R ; from March 4th to April 30th, 58 days, R fell on only 8 days to the extent of ·39 in. The total was, however, about the average, and 7·42 in. above the preceding year.

TEGFYNYDD [NARBERTH].—A remarkably dry spring, and no grass or hay was ready for cutting till August. R much below the average.

ST. BRIDES BAY.—The spring and summer were abnormally dry and warm.

HAVERFORDWEST, HIGH STREET.—Severe cold occurred in the first week of January ; February was mild and very wet ; March was dry with unusually high temp., and great heat and drought set in in April, which factors sealed the fate of the agriculturists. From May through the summer, the R was small, and the day and night temp. above the average, with a very large amount of bright sunshine and great dryness of the air. The season was decidedly a healthy one, but very adverse to the farmer. October was mild and wet, November wet, cold and very stormy, with much S, and December very wet with destructive gales. The year was the driest but one in 44 years.

ST. DAVID'S.—The year was dry and the early drought produced a general failure in the hay and corn crops. Many wells became dry and there was scarcity of water. April was the most sunny month of the year ; December the wettest and most stormy. The weather for autumn sowing was exceptionally suitable and fine.

NEWPORT, THE CASTLE.—The year opened with low temp. continuing till January 11th, after which there was only an occasional frost. There were four consecutive days' frost in November, but December was unusually mild. February and December were the wettest months, and March and April the driest. During the four months, March to June, there was not enough R to fill the springs, and there was great scarcity of water till the end of October. Violent gales occurred in November, one lasting from 16th to 20th.

STRATA FLORIDA, HAFOD.—R fell oftener here among the mountains than near the sea. In the whole year there was one fortnight without R. S covered the ground wholly or partially for 19 days.

CRICKHOWEL, GWERNVALE.—January was cold and showery, with S on 6th, 7th, 8th and 14th; February very wet and stormy; March and April were fine and dry; June and July were somewhat showery with T; August and September were rather fine and October was very showery; November and December were rather stormy.

BRECKNOCK, LLANDEFAELOG-FACH.—March and April were exceptionally dry, only ·94 in. of R falling on 12 days in the two months, the average for 14 years being 4·71 in. on 31 days.

NEW RADNOR, DOWNTON.—R 7·7 per cent. below the average, and irregularly distributed. A partial drought extended over 56 days in March and April, while of the remaining ten months, five had considerably more than the average R. The large amount of sunshine was remarkable, and the crops were saved mainly by the ample R in July. The number of rainy days was ten per cent. less than the average.

WELSHPOOL, POOL QUAY VICARAGE.—R 2·31 in, below the average of 5 years. Absolute drought occurred from April 2nd to 15th inclusive, and partial drought for 59 days ending May 14th.

ST. ASAPH, NANTLYS.—The driest year since observations commenced in 1865, ·10 in. more R falling in 1888.

RHYL, SEDGLEY HOUSE.—Much less R than usual, seven inches less than in 1892, and only one day with a fall exceeding an inch. March and April were very dry.

PRESTATYN, EDLESTON HOUSE.—One of the most remarkable years remembered. With the exception of February the first seven months were excessively dry, the longest period of drought being from March 17th to April 15th, 30 days with only ·01 in. of R While there was no very heavy fall in one day, there were a

number of moderately big falls, for a dry year. On 39 days over ·20 in. was measured, the total of these days being 13·51 in., thus leaving only 9·00 in. to fall on the remaining 126 rainy days.

ROSSET, TREVALYN HALL.—R 7·50 in. below the average of 25 years, and the smallest recorded, the nearest approach being 22·11 in. in 1887. The spring was specially dry and the hay crop very deficient. The summer began early and was unusually fine and warm. Much sunshine prevailed throughout the year and very little fog.

DOLGELLY, WERNGOCH.—February and the first week in March were very wet, no less than 9·05 in. of R falling, but April, May, June and July had much less than the average. October, November and December were very wet, with a total of 21·89 in.

LLANERCHYMEDD, LLWYDIARTH ESGOB.—No long absolute drought occurred, but there were droughts from March 12th to April 16th, May 2nd to 14th, and May 23rd to June 3rd. Springs were affected and did not recover till December. Frequent violent gales occurred during the last quarter.

DOUGLAS, VICTORIA ROAD.—Decidedly a fine year. Except 1878, 1887 and 1889, the least R for 20 years, being nearly 7 inches less than the average, and only one fall of an inch in 24 hours. January was mild and dry; February the wettest month and very stormy. It was extremely dry from March to July, and beautiful weather prevailed, especially in March. Copious and welcome R fell in July and August, but no high temp. was recorded. September was dry and although storms and cold W. to N.W. winds were unpleasantly frequent during the summer months, the whole period, March to September was unusually fine. A wet, though not ungenial October followed; November was dry as a whole, but R set in with very stormy winds and some S on the 20th, and was recorded daily till December 30th, or on 50 consecutive days; the latter month was extremely wet, mild and stormy, the wind attaining the force of a gale on 16 days.

ST. PETER PORT.—March, April, May and June were dry, two absolute droughts and one partial drought occurring. July 4th was remarkable for the heavy R, 2·05 in., in a TS which lasted nearly five hours.

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

AUCHENCAIRN, TORR HOUSE.—Very fine throughout. Summer bright and dry, with occasional showers to keep the crops from being burned up. R 5·99 in. below the average of 23 years.

DALBEATTIE, COLVEND MANSE.—Many months were exceptionally dry, but December was the wettest month recorded in over 30 years.

KIRKPATRICK DURHAM, GLENLAIR.—R 3·23 in. less than the average of nine years, and, but for the heavy R in February, the deficiency from March to June inclusive would have caused a severer drought; as it was, the well and spring water was short. The summer was hotter than usual.

DUMFRIES, IVY BANK.—R 3·15 in. less than the average of seven years, and the least in any year excepting 1887.

MONIAIVE, MAXWELTON HOUSE.—A beautiful, warm, dry summer, with enough R exactly when it was wanted. Excellent hay, oat and root crops, and plenty of pasture. The best season the farmers have ever known. December was wet.

MOFFAT, CRAIGIELANDS.—Good weather for all crops. There was deficiency of running water, and surface wells failed. Plenty of sunshine.

RIDDELL.—August, September and October were remarkably dry, resulting in a bad water famine.

MELROSE ASYLUM.—A dry year, the R being 4·66 in. less than the average of 11 years. In only two years, 1885 and 1887, was the fall less. Number of rainy days 20 fewer than the average.

MELROSE, ABBEY GATE.—One of the finest years on record. R 6·04 in. below the average, and the least for 22 years. Mean temp. 2°·2 above the average.

DIVISION XIII.—SOUTH EASTERN COUNTIES.

WHITTINGHAME GARDENS.—R nearly three inches less than the average, the deficiency being in March, May, August and October. The temp. in the early part of the year was above the average, but especially so in May, June, July and part of August.

BO'NESS, GRANGE.—The spring was remarkably fine and genial,

more so than can be recalled by the oldest inhabitants. R fell just in time to save the crops and give an excellent and early harvest. Great scarcity of water was experienced from June to October, the R being considerably below the average.

DIVISION XIV.—SOUTH WESTERN COUNTIES.

BIGGAR, CAMBUS WALLACE.—Although the spring was dry, there was enough R for the crops, all of which were good, and the harvest was unusually early.

DALZELL HOUSE.—A spell of drought from May 23rd to June 23rd was the one little fault in the year. Fruit growers generally pronounce 1893 the most remarkable year for productiveness in their experience, the retentive nature of the soil in Clydesdale being favourable in a dry season.

COLMONELL.—R 5·62 in. below the average of 17 years. Mean temp. 3°·9 above the average, and higher than that of any other year.

DIVISION XV.—WEST MIDLAND COUNTIES.

HELENSBURGH.—Early spring and summer, and wet autumn. Unusually severe TSS.

STRATHBLANE, CRAIGEND CASTLE.—R 7·53 in. less than in 1892, and water was scarce in the summer. The first half of January was clear and frosty, and about six inches of S fell, the second half was wet and stormy. February was wet and dull, with sleet and S, about six inches falling on the 26th. March was fine and mild, except from 12th to 15th. April was very fine and dry, and the first half of May was dry, but the second half wet. June and the first half of July were very fine and warm. August was wet and sultry, and very hot from 12th to 15th. The first part of September was fine, the second wet, and October was very wet. Fine and frosty in the first half of November, then wet and stormy, with a hurricane on 17th and 18th, doing great damage. December was stormy and wet, and very mild during the last week.

STIRLING, VICTORIA PLACE.—R probably a little below the average. Though there were spells of very dry weather, R always came before any harm was done to the crops.

BUCHLYVIE, THE MANSE.—R less than the average, the deficiency being caused more by the general lightness of the falls than by long periods of drought, the number of rainy days being rather more than usual. From March to September inclusive the R was 8·64 in. less than the average of four years. Heavy S on the hills on September 21st to 23rd. Few TSS.

BALLACHULISH, ARDSHEAL.—The latter half of January wet; T in the early part of February, followed by gales and much R. Evenly distributed R through March, April and May; June dry, and drought felt slightly in the first week of July; August hot and moist; October excessively wet, and R on 30 days in December, the total for that month being 13·25 in.

BALLACHULISH.—The finest spring and summer on record; a wet autumn and very wet winter.

ISLAY, ARDBEG.—The driest summer and autumn on record, yet the total R for the year was remarkably near that of 1892. Much more sunshine than usual, and most crops good.

ISLAY, EALLABUS.—R 4·50 in. less than the average of 25 years.

ISLAY, GRUINART SCHOOL HOUSE.—The summer was very hot, and wells were dry for a long time.

DIVISION XVI.—EAST MIDLAND COUNTIES.

KINROSS, GELLY BANK.—A season of high temp.; light R with an almost total absence of TSS.

DOUNE, GARTINCABER.—The year was chiefly remarkable for the large amount of sunshine and fine weather in the spring and summer and for the heavy gales, mildness and R of the winter. There was no continuous frost.

CALLANDER, LENY.—R much below the average; temp. very high.

COUPAR ANGUS STATION.—Total R deficient, being about two thirds of the average; number of rainy days also below the average.

DIVISION XVII.—NORTH EASTERN COUNTIES.

FETTERCAIRN.—R and rainy days both below the average. March and April very dry, favourable seed time; June and August very hot.

CROMAR, TILLYPRONIE.—A dry spring and fine warm summer; all crops well ripened and well saved.

ELLON, KERMUCK.—Only the skirts of the great English drought were felt here, and the spring was one of the most genial in memory. The want of R, was, however, getting serious, when complete relief came with a steady downpour on June 22nd and 23rd. The closing months were marked by great unsteadiness and repeated hurricanes.

OLD DEER.—Exceptionally dry from March 18th to June 18th, only a little over 2·50 in. of R falling in the three months; after that time R began to fall, and continued with the result of good crops of exceptionally fine quality, which were early and well harvested.

CRAIGELLACHIE, WESTER ELCHIES SCHOOL.—The spring was dry with a warm May, which gave vegetation an early start, and caused a fairly early harvest. The latter part of the year was not dry, but the temp. was mild till November.

FORRES, GRANGE HALL.—The R during July, August, September and October was quite abnormal, and the R throughout the year was exceptional for this very dry district.

DIVISION XVIII.—NORTH WESTERN COUNTIES.

STRATHPEFFER SPA.—S fell on 24 days during the year, but in small amounts only, except in February and March. There was absolute drought from June 7th to 19th, and from November 7th to 15th. December was very wet and warm.

N. UIST, LOCH MADDY.—R 1·60 in. above the average of 10 years. The features of the year were the heat of the late spring and summer, the excessive R of the last five months and the very heavy gales of the last two and a-half months.

FORT AUGUSTUS.—The first half of the year was excessively dry and the last quarter excessively wet. On October 24th the R was the greatest (2·32 in.) hitherto recorded.

LOCH NESS, DRUMNADROCHIT.—R 3·35 in., and rainy days 20, above the average. One half of the total fell after August 30th, the fall for the last four months being 50 per cent. above the average. From the small R in the spring, and the drought and excessive heat of the summer, the year is likely to be popularly remembered as an unusually dry one.

DIVISION XIX.—NORTHERN COUNTIES.

SCOURIE.—The first two months were characterized by keen frost and a good deal of S; March opened somewhat similar, but towards

the end became very fine and warm; this continued almost without intermission until July 15th, when R became very frequent and heavy, and there was scarcely a dry day from that date to the close of the year. An abnormally wet harvest time and winter.

WATTEN.—A very mild spring, a bright, hot, dry summer, and a very wet autumn.

IRELAND.

DIVISION XX.—MUNSTER.

CORK, CLARENCE PLACE.—Remarkable for drought from March to July inclusive, the R being less than half the average. There were many and great storms in November and December, particularly that of November 16th to 18th. Absolute drought prevailed for 19 days, ending June 25th, and partial drought for 42 days, ending April 14th.

MALLOW, OLD DROMORE.—Long periods of drought occurred in March, April, May, June and November. February and December were very wet.

DINGLE.—R nine inches less than the average.

DERRY CASTLE, [KILLALOE].—The R was 5·04 in. (10½ per cent.), and the number of rainy days 10, below the average of 10 years. February, August and December were the wettest months, and January, March, April and July were the driest. The R of the remaining months did not vary much from the average. Heavy gales were frequent in November and December.

NENAGH, CLASHNEVIN.—The winter was not severe, and the spring was milder than usual, with light R. The spring corn and seeds came on well, the temp. being higher than usual in March and April, and white thorn was in blossom at the close of the latter month. R was much wanted, but did not come till May 16th, when in eight days 1·25 in. fell, but it was late in June before the land got moist, and corn was short in straw. The autumn was remarkably fine, with high temp.

BALLINGARRY, HAZELFORT.—An exceptionally dry summer, and mild winter up to the end of December.

LIMERICK, ROXBOROUGH.—An extremely dry year, March, April and May having collectively only 2·99 in. of R. The heat in June was tropical, and August was nearly as warm.

O'BRIENSBRIDGE, ROSS.—Only two drier years since 1846, and the amount of sunshine equalled, if it did not exceed that of any other year. On no day of 24 hours did one inch of R fall.

BROADFORD, HURDLESTOWN.—A very dry year, the R being 4·65 in., and the number of rainy days 7, below the average of eight years.

MILTOWN MALBAY.—The driest year remembered, and said to be the driest since 1822. March, April, May and June were very dry, and although over 12 inches fell during July, August and September, the ground was so parched, and the sun so powerful, that little trace remained of it after a few hours. November was also dry, so that water was very scarce during the entire season, and only in December did the springs fill up, and the wet lands overflow. The last month was very tempestuous.

DIVISION XXI.—LEINSTER.

NEW ROSS, LONGRAIGUE.—The least R in the 25 years during which observations have been taken, excepting 1887, when 3·63 in. less fell. Wells were dry in July, and recovered only on December 20th.

ENNISCORTHY, BALLYHYLAND.—The driest year since observations commenced in 1866, with the exception of 1887, when the R was 2·98 in. less.

GRAIGUE, BRANDONDALE.—Great scarcity of spring water from August to December, and the well which supplies the house was dry from the middle of August till December 28th.

KILKENNY, LAVISTOWN.—A very difficult year for agriculturists, owing to the long droughts that prevailed.

GREYSTONES, KNOCKDOLIAN.—Deficient R, and many springs and wells completely failed.

ABBEY LEIX, BLANDSFORT.—R 2·82 in., and number of rainy days 39, less than the average of 20 years.

KILLINEY, CLONEEVIN.—The year was singularly fine, with a great deal of sunshine. The R (which was 7·47 in. less than the average of eight years) fell in such small quantities at a time, in part of counties Dublin and Wicklow, that the Vartry Reservoir at Roundwood was nearly exhausted, and Dublin and the neighbouring

townships had to draw the greater part of their water supply from their former source, the grand canal. There were two absolute droughts, 14 days ending April 14th, and 15 days ending June 21st. S fell on nine days, and strong gales occurred on 7 days.

DUBLIN, PHŒNIX PARK.—R 2·71 in. less than the average of ten years, and 6·68 in. less than the fall in 1892.

ACLARE HOUSE.—A very dry year; all the streams and a number of wells had little or no water for the greater part of the summer.

RAVENSDALE SCHOOL.—R much below the average.

EDGEWORTHSTOWN, CURRYGRANE HOUSE.—A phenomenally dry summer, and very early as regards growth, &c. R 3·99 in. less than the average of 15 years.

DIVISION XXII.—CONNAUGHT.

WOODLAWN.—Very dry throughout and suitable to this locality, which is naturally damp.

CLIFDEN, KYLEMORE HOUSE.—The year on the whole was fine, except December.

TUAM, CASTLE HACKET.—Wonderfully dry, but a wet February gave a plentiful supply of grass through the summer.

TUAM, GARDENFIELD.—The driest for many years; R 8·33 in. less than the average of 10 years. The deficiency in the 1st quarter was 2·13 in.; in the 2nd quarter 2·94 in.; in the 3rd quarter 1·34 in.; and in the 4th quarter 1·92 in.

BALLINAMORE, LAWDERDALE.—R 3·25 in. less, and rainy days 19 fewer, than the average of 10 years. It was not on the whole so dry a year as 1887. Between March 1st and July 7th it was exceptionally dry; springs and wells, however, did not fail, and there was no drought. It was a particularly good year for root crops; hay and corn also were very good, but rather difficult to save owing to "dropping weather" during harvest.

DIVISION XXIII.—ULSTER.

EDWARD STREET STATION [NEWRY].—The driest year since 1875, when the register was started. No R fell on the 12th of any month.

LURGAN, BELLE VUE.—R 7·15 in. below the average of 12 years. January, February, October, and December had about the average; August more than, and all the remaining months much less than, the average; March, April, May and November being specially dry. The number of days on which ·01 in. or more fell, was greater in

proportion to the total R than in any previous year since the record commenced in 1881.

WARINGSTOWN.—The finest season in living memory. In the spring, pastures were bare, but the R in July and August falling on the heated land, soon changed this, and our grain crops being late were also refreshed in time, and by the return to dry weather in September, were harvested early in good condition.

ANTRIM, THE MANSE.—Remarkably pleasant and enjoyable after February, and the brightest and driest experienced over the North of Ireland within living memory. Owing to the short R in the early spring and summer, apprehensions existed with reference to the harvest, but this proved abundant and the late rains gave a good second hay crop and rich pasture.

BALLYMENA.—The driest year since 1887; August was the wettest and May the driest month. A fine dry spring and summer.

BALLYMONEY, BALNAMORE.—An unusually dry year.

LIMAVADY.—The first half of the year was most favourable, the R in most of that portion of the year being favourably distributed for the crops and cultivation. The harvest months had rather more than enough R, but the crops were finally secured without much damage. High winds and about an average amount of R characterized the last three months of the year.

STEWARTSTOWN, THE SQUARE.—R a little below, and number of rainy days about, the average.

OMAGH, EDENFEL.—Whilst many parts of the kingdom suffered from drought, here there was almost exactly the average R so distributed over the months that vegetation never was checked or injured by deficiency or excess. This, accompanied by a high average temp. and an unusual amount of bright sunshine, will leave 1893 and especially its spring and summer a pleasant memory in the way of Irish weather, and we should have to go back to what is reported of 1820 to find a year in which the climatic conditions were as perfect or the produce of the earth as abundant as in 1893.

RAPHOE, CONVOY HOUSE.—Remarkably fine, yet the R was above the average, but the summer was warm and fine, and everything at least a month earlier than usual. The R, too, fell at such favourable periods, that crops of all kinds were good and the harvest excellent. There was a good deal of high wind in the autumn, and two heavy gales, but not much frost or S.

HORN HEAD.—The early part of the year was very dry, but after July there was a great deal of R, falling very heavily, but not for long at a time.

HEAVY FALLS IN SHORT PERIODS IN 1893.

WE have treated these in exactly the same way as in previous years, except that we have placed at the end of this section (instead of putting it among the "Observers' Notes") the details as to the great rainfall at Eastbourne on Sunday, July 16th.

As regards the tabulation and the diagram, there is absolutely no change.

Judged by the diagram, the rainfall in five minutes at Preston, on August 10th, is by far the most intense of the year. The full information sent to us will be found on page [24], and in the *Meteor. Mag. loc. sit.* It is much to be regretted that no recording gauge exists at Preston, and the entry of $1\frac{1}{4}$ inches in five minutes is only an estimate. If true, it is by far the most intense rain yet recorded in this country. We do not remember any case in the British Isles of even 1 inch (*à fortiori* of $1\frac{1}{4}$ inches) falling in five minutes; in fact, the greatest quantity for five minutes which we have yet traced was in the great fall of June 23rd, 1878, at Camden Square, when ·56 in. fell in five minutes. The Preston fall would, therefore, if actually measured, have stood out as more than double the highest yet recorded. That the estimate is correct it is for no one to deny; but no actual measurement has hitherto given a higher intensity than 12 inches an hour, and that only for 30 seconds; whereas the present case gives a rate of 15 inches an hour, and lasting 5 minutes.

If we turn to the total of the Preston storm—2·09 inches in 35 minutes—we find that, though extremely unusual, it is not without two precedents :—

1878. June	Div. I.	Camden Square.....	2·42 in.	fell in	35	min.
1880. July 22nd	,, XI.	Ash Hall, Cowbridge.	2·90 ,,	,,	30	,,
1893. Aug. 10th	,, VIII.	Preston.	2·09 ,,	,,	35	,,

But for the foregoing entry, the record for June 14th at Shirenewton Hall, of ·62 in. in five minutes, would have claimed first notice as exceeding the highest previously recorded for that interval; but ·62 in. is less than half of the wonderful 1·25 in. !

In fact, though the table contains many more exceptional cases than usual, they are all dwarfed by the Preston one. There must be

nearly a dozen cases of over an inch in an hour, and three, if not four, of more than two inches in an hour, viz. :—

July 3rd	Div. III.	Apethorpe Lodge.....	2·47 in.	in 1 hour.
,, 11th	,, IV.	Fakenham (Cranmer Hall)	2·40 ,,	,, about 1¼ hrs
Aug. 10th	,, VIII.	Preston	2·09 ,,	,, 35 minutes.
June 14th	,, VI.	Brewood (Belvide Res.)...	2·38 ,,	,, 2 hours.*

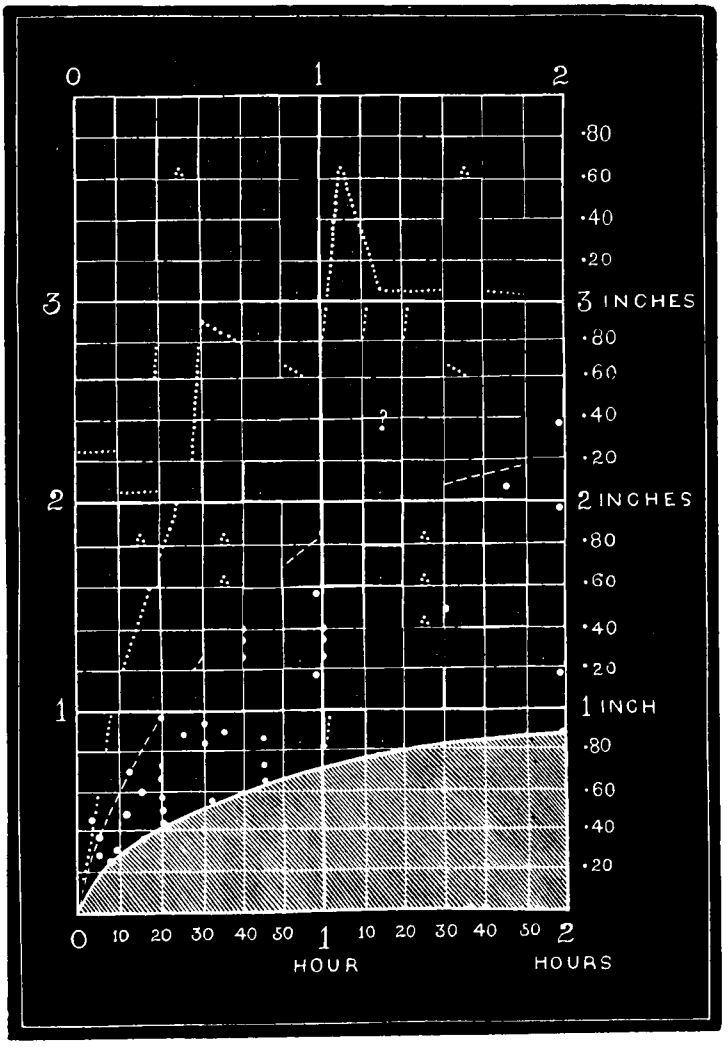
Of course, besides these records, there are the unmeasured falls mentioned in the article on "The Waterspout on the Cheviots," and various others in the "Observers' Notes."

Heavy Falls in Short Periods in 1893.

Date.	Div.	Station.	Amount.	Duration.		Rate per hour.
			in.	hr.	min.	in.
May 17 ...	I.	Camden Square	·22	...	4	3·30
Aug. 10 ...	VIII.	Preston, Corporation Offices...	1·25?	...	5?	15·00xx
June 14 ...	XI.	Shirenewton Hall	·62	...	5	7·44xx
July 12 ...	IV.	Maldon, Norton Hall.....	·38	...	5	4·56x
Oct. 2 ...	V.	Harptree Court	·24	...	5	2·88
Sept. 8 ...	,,	Stowell Rectory	·23	...	7	1·97
Oct. 1 ...	II.	Tenterden.....	·29	...	9	1·93
July 26 ...	I.	Finchley, Etchingham Park...	·33	...	10	1·98
,, 11 ...	VI.	Ross, The Graig	·31	...	10	1·86
Aug. 4 ..	I.	Camden Square	·48	...	11	2·62
July 12 ..	VI.	Redditch	·70	...	12	3·50x
,, ,, ...	IV.	Walthamstow, Forest Road...	·46	...	12	2·30
,, 16 ...	II.	Eastbourne	·60	...	15	2·40
,, 2 ...	X.	Pawston	·37	...	15	1·48
June 14 ...	V.	Devizes, County Asylum	·99	...	20	2·97x
July 2 ...	X.	Sunderland	·75	...	20	2·25
June 7 ...	,,	Ulpha Vicarage	·70	...	20	2·10
Sept. 8 ...	III.	Hitchin, The Maples	·59	...	20	1·77
,, ,, ...	,,	,, Bancroft	·58	...	20	1·74
Aug. 10 ...	,,	Berkhampstead, Rosebank ...	·52	...	20	1·56
,, 3 ..	VI.	Cheltenham	·46	...	20	1·38
,, 4 ...	III.	Datchworth Rectory	·44	...	20	1·32
July 11 ...	,,	Maxey Vicarage	1·05	...	22	2·86x
June 4 ...	IV.	N. Walsham, Worstead	·89	...	25	2·14
July 12 ...	II.	Emsworth, Redlands.....	·78	...	25	1·87
,, 13 ...	IV.	Maldon, Norton Hall...	·94	...	30	1·88
June 8 ...	XVII.	Braemar	·82	...	30	1·64
July 2 ...	VII.	Plumtree, Normanton-on-Wolds...	·55	...	32	1·03
Aug. 10 ...	VIII.	Preston, Corporation Offices...	2·09	...	35	3·58x
May 15 ...	V.	Ashburton, Druid	·90	...	35	1·54
Aug. 3 ...	VI.	Almondsbury	·85	...	45	1·13
Oct. 9 ...	III.	Watford, Frogmore	·73	...	45	·97
Aug. 18 ...	XXI.	Carlow, Browne's Hill	·66	...	45	·88

* According to the usual type of storm rains, this would give *about* 2 inches for the first hour and ·38 in. for the second.

HEAVY FALLS IN SHORT PERIODS.



..... **the extreme values hitherto recorded.**

..... **extremes rarely reached.**

The shaded portion represents falls so frequent as not to require special notice.

Face p. [122].

Heavy Falls in Short Periods in 1893—(continued).

Date.	Div.	Station.	Amount.	Duration.		Rate per hour.
			in.	hr.	min.	in.
July 3 ...	III.	Apethorpe Lodge	2·47	1	0	2·47x
,, ,, ...	VI.	Cheadle, The Heath House ...	1·97	1	0	1·97x
June 23 ...	IX.	Northallerton	1·85	1	0	1·85x
,, 19 ...	XI.	Gwernyfedd Park	1·40	1	0	1·40
,, 14 ...	V.	Bishops Cannings	1·35	1	0	1·35
July 16 ...	II.	Eastbourne, Gildridge Road ..	1·26	1	0	1·26
June 8 ...	XII.	Kirkpatrick Durham, Glenlair	1·03	1	0	1·03
May 18 ...	VIII.	Gawthorpe Hall	·93	1	0?	·93
July 11 ...	V.	Devizes, County Asylum	·91	1	0	·91
May 15 ...	VI.	Stroud, Stanley Park.....	·89	1	0	·89
July 3 ...	X.	Grasmere, Pavement End.....	·80	1	0	·80
,, 11 ...	IV.	Fakenham, Cranmer Hall.....	2·40	1	15?	1·92x
Aug. 5 ...	IX.	Beverley, East Riding Asylum	1·00	1	15	·80
July 10 ...	VIII.	Whittle-le-Woods	1·35	1	25	·95
Aug. 3 ...	VII.	Rotherby Hall.....	1·47	1	30	·98
July 12 ...	IV.	Little Saxham.....	2·05	1	45	1·17
June 14 ...	VI.	Brewood, Belvide Res.	2·38	2	0	1·19x
July 8 ...	IX.	Melmerby, Baldersby.....	1·33	2	0	·67
,, ,, ...	XX.	Killarney	1·15	2	0	·58
May 17 ...	VII.	Findern.....	·86	2	0	·43
Aug. 3 ...	,,	Waltham-le-Wolds.....	1·60	2	10	·74
July 15-16	II.	Worthing, Heene	1·13	2	30?	·45
June 14 ...	VI.	Bridgnorth, Coton Hall..... ..	1·53	3	0	·51
,, ,, ...	,,	Dowles [Bewdley]	1·50?	3	0	·50
July 8 ...	X.	Dinsdale Rectory	1·40	3	0	·47
Oct. 9 ...	III.	Slough, Langley	1·19	3	10	·38
July 11 ...	V.	Bideford, Horwood	2·42	5	0	·48
June 27 ...	XXIII.	Dungannon (Rockdale)	3·33	6	30	·51
May 21 ...	XXII.	Jamestown, Albert Lock	2·75	7	30	·37

Unusual entries are marked x, unprecedented ones xx.

We have to record here, also, the heavy rainfall at Eastbourne on July 16th, of which we have unusually full particulars.

THE EASTBOURNE RAINFALL OF JULY 16TH.

We give first a newspaper account of the inconvenience produced by the rainfall of this day, and then, thanks to the assistance of Mr. Tomes and Mr. Michell, unusually full details of the cause of the mischief :—

AN INUNDATION AT EASTBOURNE.—Some extraordinary scenes were witnessed at Eastbourne yesterday. It rained heavily all the morning and when the people came out of church they found the streets impassable. In several of

the principal streets the water was up to the knees, and was pouring into the basements of the houses. Ladies were carried by their gentlemen friends across the streets, and loafers frequenting the Gildridge corner, earned sixpences by conveying their better dressed fellows from place to place. The manholes in the roads were converted into fountains, the water spouting up from many different gratings, and helping to swell the torrent. The rain ceased at one o'clock and as the water cleared away, a thick coating of slush was left on roads and pavements. Terminus road, the chief business thoroughfare, presented the worst spectacle. All the afternoon the corporation workmen were cleansing the pavements and carting slush away in the mud carts, while the whole of the fire brigade was at work with three engines pumping water out of cellars. The state of affairs caused considerable excitement in the town, such extensive flooding never having been experienced before, although the corporation have just expended £25,000 on a new surface water drainage system. By this system the water is stored in a large tank, which is emptied at low water. It was high water at midday, and apparently the tank became full, and the water, being unable to escape, rushed back into the drains.

We have endeavoured to epitomize the facts in the accompanying sketch map and diagram, which we hope need no explanation.

Two circumstances of an unusual character help to make our information remarkably satisfactory, and but for a little laziness it would have been unprecedentedly so.

The denser part of the town is represented by the shaded area, which it will be seen has a sea frontage of rather more than two-and-a-half miles—and there were five rain gauges within one square mile, the centre one being a recording gauge. There are as yet too few recording gauges at work, and it is very rare for one to be where an exceptional fall occurs. However, Mr. Tomes had two of them, and had the good fortune of obtaining the important record given on our diagram. Reverting for a moment to the map of the town, it will be seen that this recording gauge which collected 2·32 in. was close to the railway terminus.

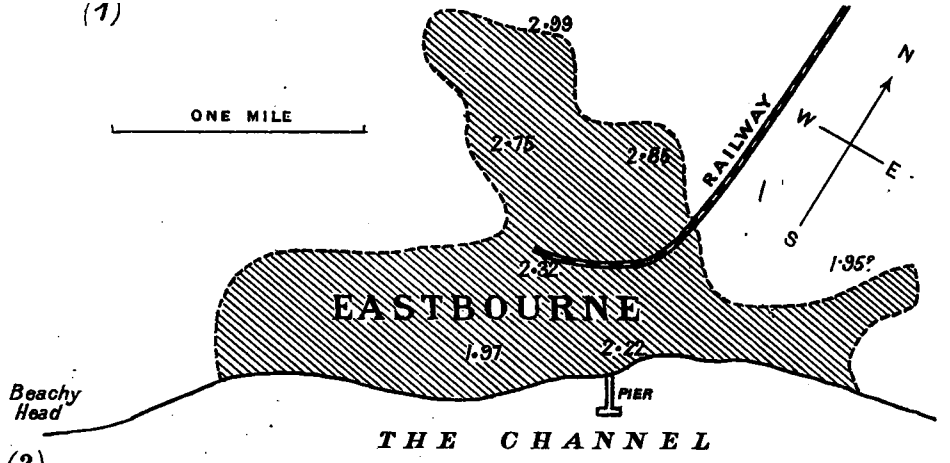
The record of 2·85 in. at Arundel Road was curious, in that the observer, Mr. Bradford, had bought the gauge only a few days previously; Mr. Sheward (the Meteorologist to the Corporation) fixed it for him on the Saturday and the first measure taken (but of course he ought to have read at 9 a.m. on Sunday) was the very unusual one of 2·85 in. in the afternoon of the Sunday.

We said that we lost something by laziness. There was another recording gauge at the Ejector Works at the east-end of the town, but the man in charge had run out of papers, and had not applied for a fresh supply; therefore there was no paper on the drum and

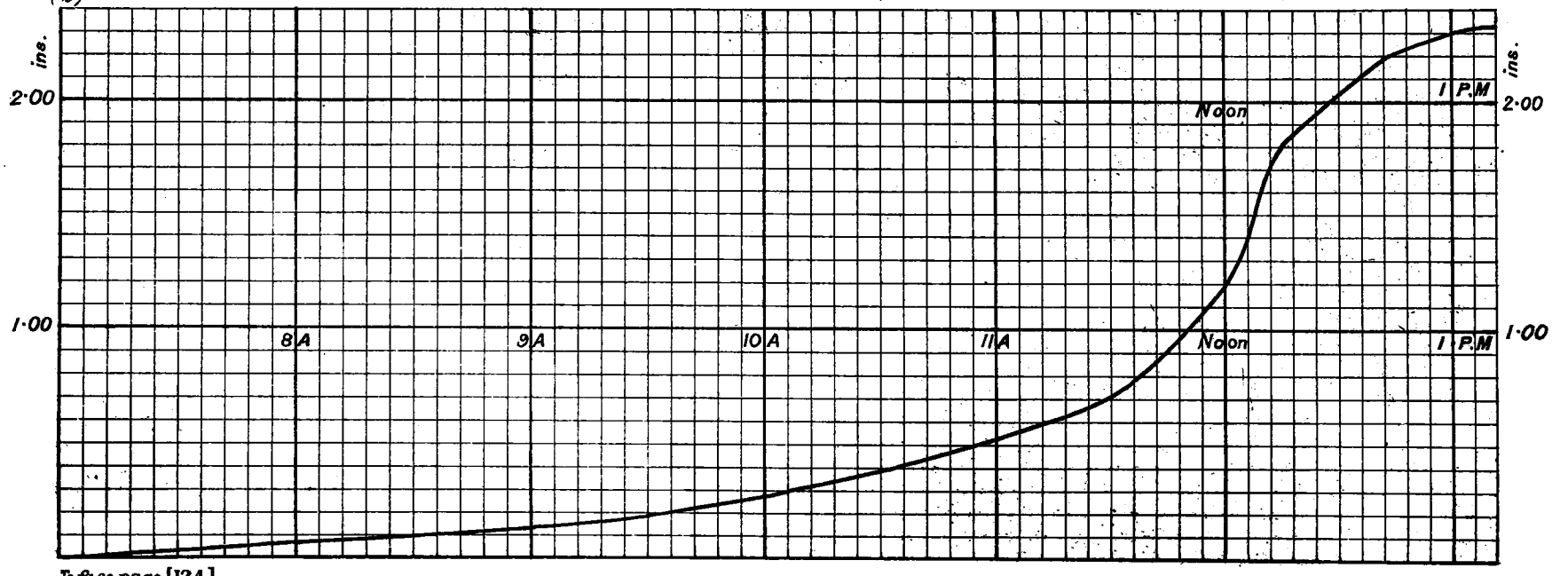
THE HEAVY RAIN AT EASTBOURNE, SUSSEX July 16th 1893

(1) *Sketch Map of the town, showing the total rainfall at each station.*
(2) *Curve from Mr. Tomes's recording gauge near the centre of the town.*

(1)



(2)



To face page [124]

no proper record was obtained; it is believed that the total was about 1·95 in.

It was no wonder that the drainage system broke down, because the Western and Northern parts of Eastbourne are high, the Central and Eastern very low, and the sewer outlet is to the E., therefore as the outlet was stopped by the tide, the sewers would become not merely full, but under pressure from the water entering in the higher parts of the town, and it would therefore necessarily fount-up from the gulleys in the lower parts.

It is stated that several waterspouts were seen at sea, and that one came on shore, but it seems improbable that it fell over Eastbourne; the curve from the Gildridge Road gauge, and the uniformity of the records from the ordinary gauges, negative such a theory.

It is obvious from the curve, that the fall partly belonged to the 15th (*i.e.* that before 9 a.m. 16th) and partly to the 16th—but it will be convenient to treat the fall as a whole.

	July.		
	15th. in.	16th. in.	Total. in.
Eastbourne, Osborne Ho.	·22	2·00	2·22
,, Wilmington Sq.	?	?	1·97
,, Ejector Works	?	?	1·95 ?
,, Gildridge Road	·15	2·17	2·32
,, Arundel Road	?	?	2·85
,, Trevella	?	?	2·75
,, Cemetery	·36	2·63	2·99
East Dean	·16	1·65	1·81
Brighton	·85	·70	1·55
St. Leonards	·29	1·43	1·72
Hailsham	·29	1·18	1·47
Lewes (Saxonbury)	·41	1·06	1·47
Hastings	·03	1·56	1·59

HEAVY FALLS IN 24 HOURS IN 1893.

Introductory.

Having fully explained last year how the values tabulated and discussed in this section are obtained, it does not seem to be necessary to repeat it on the present occasion, except in one sentence.

The figures given and dealt with in this section are the largest amounts recorded in any rainfall day (*i.e.*, 9 a.m. to 9 a.m.) at upwards of 2,000 stations, and the percentage which those amounts are of the total fall in the year.

All these* are utilized in the second part of this article—the "Abstract"—but in the first part, entitled "Chronicle," only a selection is printed.

No part of rainfall work has presented more difficulty than the deciding what is the limit at which the fall of rain in a rainfall day is to be regarded as sufficiently exceptional to claim a record in this section of the volume. It is quite clear that mere amount cannot be taken as the guide, because a fall of 4·00 in. at Seathwaite would be only $\frac{1}{35}$th of the yearly fall, and would bear the same proportion there as $\frac{3}{4}$ of an inch would to the London total. Hence we have long selected returns exceeding a certain total depth, and also those exceeding a certain percentage—*e.g.*, 4·00 in. at Seathwaite would be in an average year about 3 per cent.—but experience has shown that the fall in one day may, in some parts of the country, run up to nearly 20 per cent., or $\frac{1}{5}$th of the total for the year, and that 6 or 7 per cent. is comparatively common. As a rule, large falls occur at wet stations, and large percentages at dry ones. In dealing with this question, which had never been dealt with before the issue of the series of *British Rainfall*, and has never been dealt with elsewhere, we have found it extremely difficult to decide upon an unswerving rule. Dry years—*i.e.*, years with small total rainfall—at once send up the percentages, and a fall insignificant in itself (say, an inch), becomes, perhaps, one of 7 per cent. On the other hand, in a wet

* Except those from Lighthouses which are often vitiated by the collection of sea spray.

year, if the same amount falls at the same station, it may barely exceed 3 per cent. Hitherto we have more or less varied the limits above which the heavy falls have been set out in detail, but this prevents the lists being as comparable one with another as they should be. We gave last year the reasons for taking, as we then did, the limits of $2\frac{1}{2}$ inches or 7 per cent. as those which (the one or the other) must be reached or exceeded by every fall which should be recorded in this section.

We arrived at these values as the result of experience. Since then we have been computing from Table V. of *Brit. Rain.*, 1892 (but the corresponding table on p. [136] of this volume gives nearly identical values), what would be the proper percentage to correspond with 2·50 in., and it works out 7·35. This is eminently satisfactory, for it shows that we had selected the whole percentage nearest to the proper one; evidently, however, $7\frac{1}{2}$ per cent. would be better.

Therefore, in the following "Chronicle," no return is quoted unless it reaches or exceeds 2·50 inches, or is $7\frac{1}{2}$ per cent. of the total for the year. We hope that at last a workable and permanent standard has been reached, which even the eccentricities of British climate will not compel us to vary.

Chronicle.

JANUARY 5TH.

XX.	Kenmare (Derreen)	2·68 in.	4·8 per cent.

JANUARY 7TH.

XXI.	Wexford (Felt House)	1·65 in.	8·3 per cent.

FEBRUARY 13TH.

VIII.	Ulverston (Colton)	2·77 in.	5·2 per cent.
,,	Hawkshead (Esthwaite Lodge)	2·78 ,,	4·2 ,,
,,	Duddon Valley (Seathwaite Vic.)	3·80 ,,	4·7 ,,
,,	Monk Coniston Park	3·14 ,,	3·9 ,,
,,	Skelwith Fold [Ambleside]	2·82 ,,	3·7 ,,
X.	Duddon Valley (Ulpha Vic.)	3·10 ,,	4·1 ,,
,,	Seathwaite	4·96 ,,	3·5 ,,
,,	Borrowdale Vic.	3·77 ,,	3·7 ,,
,,	Bowness (Fallbarrow)	2·59 ,,	4·5 ,,
,,	Longsleddale	3·06 ,,	4·5 ,,
,,	Ambleside (Lesketh Howe)	2·70 ,,	3·7 ,,
,,	Elterwater (Birch Hill)	3·14 ,,	3·5 ,,
,,	Dungeon Ghyll	4·00 ,,	3·6 ,,
,,	Patterdale Hall	3·07 ,,	3·9 ,,

Although the above list includes several of the largest falls of the year, few of them can be regarded as really exceptional; it will be

seen that the highest percentage (5·2 at Colton) is a very low one, showing what our readers will see at once, that the entries are merely those of the wettest day in the year at several of our wet stations.

FEBRUARY 26TH.

X.	Seaham Hall	1·42 in.	or 7·5 per cent.
,,	Rothbury (Cragside)	1·95 ,,	8·1 ,,

MARCH 1ST.

X.	Ryton-on-Tyne	1·85 in.	or 7·8 per cent.

MAY 17TH.

III.	Rockingham Castle	1·37 in.	or 7·6 per cent.
VI.	Coventry (Ryton-on-Dunsmore)	1·52 ,,	7·6 ,,
,,	Bedworth Cemetery	1·64 ,,	7·5 ,,
VII.	Leicester (Town Hall Square)	1·38 ,,	8·6 ,,
,,	,, (Humberston Asylum)	1·55 ,,	8·8 ,,
,,	Thurcaston Rectory	1·35 ,,	7·7 ,,
,,	Loughborough (Forest Road)	1·60 ,,	8·4 ,,
,,	Bramcote	1·59 ,,	8·2 ,,
,,	Nottingham (Beeston Fields)	1·54 ,,	7·6 ,,
,,	,, (The Castle)	1·59 ,,	7·9 ,,
,,	Nuttall	1·62 ,,	8·0 ,,
,,	Eastwood Colliery	1·70 ,,	7·8 ,,
,,	Hucknall Torkard (Forge Mills)	1·45 ,,	7·5 ,,
,,	Derby (Etwall)	1·43 ,,	7·6 ,,
,,	Mickleover Manor	1·94 ,,	9·8 ,,
,,	Stretton (Lindway Res.)	1·56 ,,	9·3 ,,
,,	Grassmoor Colliery	2·46 ,,	11·9 ,,
,,	Chesterfield (Gas Works)	2·43 ,,	10·7 ,,
,,	,, (Linacre Res.)	1·99 ,,	8·8 ,,
,,	,, (Tapton Grove)	2·40 ,,	10·9 ,,
,,	Norton [Sheffield]	2·46 ,,	9·7 ,,
IX.	Sheffield (Brincliffe Rise)	2·17 ,,	8·4 ,,
,,	,, (Broomhall Park)	2·12 ,,	8·8 ,,
,,	,, (Crookes)	1·93 ,,	7·6 ,,
,,	,, (Weston Park)	2·10 ,,	8·2 ,,
,,	Stainborough (Wentworth Castle)	1·98 ,,	7·8 ,,

By no means an unusual rain, but the greatest in the year at many stations in Nottinghamshire and Derbyshire, chiefly due to thunderstorms.

MAY 20TH.

XXII.	Jamestown (Albert Lock)	2·75 in.	or 9·7 per cent.

MAY 21ST.

IV.	Aldborough (Aldringham House)	1·65 in.	or 8·0 per cent.

JUNE 14TH.

VI.	Bridgnorth (Aldenham Park)	2·08 in.	or 8·3 per cent.
,,	Much Wenlock (Willey Park)	1·88 ,,	7·8 ,,
,,	Bloxwich (Sneyd Res.)	2·07 ,,	9·1 ,,
,,	Weston Park [Shifnal]	1·77 ,,	8·0 ,,
,,	Brewood (Belvide Res.)	2·38 ,,	10·8 ,,

JUNE 15TH.

VI.	Pendock Rec. [Tewkesbury]	1·40	in. or	8·1 per cent.
XI.	Chepstow (The Mount)...	1·96	,,	7·5 ,,

JUNE 23RD.

IX.	Ingleby Greenhow Vic.	2·10	in. or	7·7 per cent.
,,	Northallerton	2·04	,,	9·2 ,,
XIII.	Eddlestone (Portmore Res.).....	2·80	,,	10·2 ,,
,,	N. Esk Res. [Penicuick]	2·80	,,	8·4 ,,
,,	Moorfoot Hills (Gladhouse Res.)	2·98	,,	11·1 ,,
,,	,, ,, (Rosebery)	3·05	,,	11·4 ,,
,,	Pentland Hills (Glencorse Res.)	3·50	,,	10·2 ,,
XVI.	Kilconquhar (Balcarres)	2·22	,,	8·1 ,,

A heavy fall over the N.E. of England and the S.E. of Scotland, most noteworthy on the Pentland Hills. In North Yorkshire much of the fall consisted of hail.

JUNE 24TH.

XI.	Capel Curig (Lake Cowlyd)	3·00	in. or	4·4 per cent.

JUNE 27TH.

XXIII.	Dungannon (Rockdale)	3·57	in. or	10·2 per cent.
,,	Stewartstown (Ardtrea Rec.)	4·16	,,	12·0 ,,

Tremendous rain during a thunderstorm in the North of Ireland.

JULY 2ND.

VI.	Rugby School	1·98	in. or	9·2 per cent.
VII.	Oakham (Greetham)	1·80	,,	9·1 ,,

JULY 3RD.

VII.	The Gardens [Bawtry Hall]	2·66	in. or	10·6 per cent.
IX.	Doncaster (Pumping Station)	1·93	,,	9·4 ,,
,,	Mirfield (Cote Wall)	2·54	,,	10·1 ,,
,,	Bradford (Chellow Dean)	2·65	,,	8·4 ,,
,,	,, (Heaton Res.) 5 *in. gauge*.....	2·23	,,	8·7 ,,
,,	Leeds (Woodhouse Moor).....	1·81	,,	7·5 ,,
,,	,, (Allerton Hill)	1·84	,,	7·6 ,,

JULY 8TH.

X.	Sunderland (W. Hendon Ho. No. 5) ...	1·46	in. or	7·5 per cent.
,,	Gateshead (Southdene Tower)	1·92	,,	8·9 ,,
,,	Newcastle (Clifton Road)	2·44	,,	11·3 ,,
,,	,, (Town Moor)	1·67	,,	8·1 ,,
,,	,, (Welburn Jesmond)	1·71	,,	7·8 ,,

JULY 11TH.

I.	Kensington (Edith Road)	1·57	in. or	8·0 per cent.
,,	,, (Addison Gardens)	1·53	,,	7·5 ,,
III.	Maxey Vic. [Market Deeping].....	1·79	,,	10·0 ,,
IV.	Swaffham (Dunham)	1·65	,,	7·5 ,,
,,	Fakenham (Cranmer Hall)	4·48	,,	16·2 ,,
,,	Little Saxham Rec.	3·00	,,	12·0 ,,
,,	Pensthorpe	2·04	,,	9·9 ,,
V.	Bideford (Horwood)	2·57	,,	6·7 ,,

JULY 11TH (*continued*).

VII.	Swithland (Broombriggs Hill)	1·92 in.	or 10·4	per cent.
,,	Ashby-de-la-Zouch (Cole Orton Rec.)	2·22 ,,	9·4	,,
,,	Loughborough (Nanpantan Res.)	1·48 ,,	7·5	,,
,,	Market Deeping (Wilsthorpe)	1·14 ,,	7·7	,,
,,	Melbourne (The Grange)	1·78 ,,	8·0	,,
,,	,, Vicarage	1·84 ,,	8·8	,,
,,	,,	1·73 ,,	8·6	,,
,,	Derby (Midland Railway)	1·61 ,,	8·1	,,
,,	,, (Wild Street)	2·42 ,,	11·5	,,
XI.	Tredunnock	2·34 ,,	8·0	,,

For further details of these tremendous rains see previous section, and *Met. Mag.*, August, 1893.

JULY 12TH.

II.	Deptford (Kent W.W.)	1·75 in.	or 8·8	per cent.
IV.	Langham Rectory	1·80 ,,	8·1	,,
,,	Braintree (Bocking Place)	1·96 ,,	9·7	,,
,,	Framlingham (Mount Pleasant)	1·59 ,,	7·5	,,
,,	Cawston	2·41 ,,	11·0	,,

JULY 13TH.

III.	Podington (Hinwick House)	1·37 in.	or 7·7	per cent.

JULY 15TH.

V.	Portland (The Manse)	1·62 in.	or 8·0	per cent.
,,	Weymouth (Wyke Regis)	1·95 ,,	8·0	,,
,,	Corfe Castle (Smedmore)	1·70 ,,	8·6	,,

JULY 16TH.

II.	Eastbourne (The Cemetery)	2·63 in.	or 9·2	per cent.

AUGUST 5TH.

IX.	Patrington	1·59 in.	or 8·1	per cent.

AUGUST 11TH.

III.	Cambridge (Sidney Street)	1·51 in.	or 7·7	per cent.

AUGUST 22nd.

XV.	Ardgour Gardens	2·50 in.	or 2·8	per cent.

SEPTEMBER 8TH.

VI.	Uttoxeter (Brook House)	2·06 in.	or 7·6	per cent.

SEPTEMBER 28TH.

XI.	Pen-y-gwryd Hotel	2·50 in.	or 3·4	per cent.

SEPTEMBER 29TH.

X.	Grasmere (Pavement End)	2·66 in.	or 3·1	per cent.

OCTOBER 7TH.

II.	Long Wittenham	1·58 in.	or 7·6	per cent.
XIII.	Edinburgh (Royal Observatory)	1·26 ,,	8·1	,,

OCTOBER 9TH.

I.	Hampton (Southwark W.W.)	1·50	in. or	9·6	per cent.
,,	London (Mile End)	1·54	,,	7·6	,,
,,	,, (Old Ford)	1·46	,,	7·6	,,
,,	Pinner Hill	1·95	,,	8·5	,,
,,	Harrow Weald (Hill House)	1·75	,,	7·6	,,
II.	Farnham (Great Down, Seale)	1·65	,,	7·7	,,
,,	Guildford (Piccards Rough)	1·63	,,	7·9	,,
,,	,, (Guildown, The Beeches)	2·00	,,	9·0	,,
,,	,, (Wern)	1·70	,,	8·4	,,
,,	Chertsey (Ottershaw)	1·71	,,	8·5	,,
,,	Virginia Water (Portnall Park)	2·67	,,	11·6	,,
,,	Egham (Cooper's Hill)	2·48	,,	11·4	,,
,,	Chichester (North Pallant)	2·13	,,	8·1	,,
,,	Midhurst (St. Ann's)	2·05	,,	7·6	,,
,,	Sunninghill (Lynwood)	2·41	,,	10·0	,,
,,	Old Windsor (Beaumont College)	2·57	,,	11·9	,,
,,	Windsor (Royal Gardens)	2·34	,,	11·7	,,
III.	Rickmansworth (Moor Park)	3·11	,,	10·8	,,
,,	Watford (Kytes)	2·94	,,	12·3	,,
,,	,, (Oaklands)	2·72	,,	10·3	,,
,,	,, (Frogmore)	2·51	,,	9·9	,,
,,	Hemel Hempstead (Nash Mills)	2·16	,,	9·5	,,
,,	,, ,, (Apsley Mills)	1·92	,,	8·4	,,
,,	St. Albans (The Grange)	2·02	,,	8·1	,,
,,	Slough (Langley)	2·36	,,	11·9	,,
,,	,, (Upton Hall)	2·22	,,	12·6	,,
,,	,, (,, Park)	2·49	,,	10·8	,,
,,	Chalfont (The Stone)	2·42	,,	9·8	,,
,,	Thorney	1·29	,,	7·6	,,
VII.	Long Sutton	1·58	,,	8·2	,,

A heavy but by no means unprecedented rain over parts of Middlesex, Surrey, Sussex, Berks, Herts and Bucks. Although the largest fall (3·11 in.) was in the South of Hertfordshire, the fall was more exceptional in the neighbourhood of Windsor; but even there it was far less than that of July 17th, 1890.

OCTOBER 11TH.

II.	Sheppey (Leysdown)	1·67	in. or	9·1	per cent.
,,	Rochester (Abbot's Court, Hoo)	1·35	,,	7·8	,,
,,	Sheerness W.W.	1·51	,,	7·8	,,
,,	Higham (Oakleigh)	1·25	,,	8·3	,,
,,	Lewes (Southmalling)	1·79	,,	8·1	,,

OCTOBER 16TH.

XI.	Rhiwbryfdir=Oakley Quarries	3·22	in. or	3·6	per cent.

OCTOBER 17TH.

V.	Weston-super-Mare	3·00	in. or	10·8	per cent.

OCTOBER 24TH.

XIV.	Greenock (Prospect Hill)	2·58	in. or	4·4	per cent.
XV.	Inverary Castle	2·69	,,	3·3	,,
,,	Inverary (Newtown)	2·75	,,	3·8	,,
,,	Loch Eil (Conaglen)	3·60	,,	3·7	,,
XVIII.	Fort William (Public School)	3·10	,,	3·6	,,
,,	Glenquoich	3·40	,,	2·7	,,
,,	Invergarry	3·20	,,	5·1	,,

NOVEMBER 28TH.

XVIII.	Glencarron Lodge	3·94 in. or	3·6 per cent.
,,	Ben Nevis Observatory	4·29 ,,	2·6 ,,
XIX.	Scourie	2·95 ,,	5·2 ,,

DECEMBER 2ND.

XVIII.	Loch Shiel (Glenaladale)	3·18 in. or	2·7 per cent.

DECEMBER 12TH.

VI.	Bodenham Vic.	2·05 in. or	10·2 per cent.
VII.	Brimington Hall	1·77 ,,	7·9 ,,

DECEMBER 24TH.

X.	Buttermere (Hassness)	4·37 in. or	4·3 per cent.
,,	Borrowdale (Grange)	2·75 ,,	3·2 ,,

ABSTRACT.

This sub-heading involves the consideration of the Maximum daily falls from two aspects, as regards (1) the very highest values, (2) the average for all stations.

The facts as regards (1) are given in Tables I. to IV., and as regards (2) in Table V.

Table I. contains the 16 largest daily maxima reported, and Table II. the comparison of these values for 1893, with those for the previous 28 years.

From this we see (1) that the absolute Max. for the year (4·96 in. at Seathwaite, Borrowdale, on February 13th) is not at all remarkable, has been exceeded by nearly two inches (6·78 in. in 1884), and, in fact, is less than the average max. at that station. The most noticeable entry in Table I. is, that from so dry a station as Cranmer Hall, Norfolk, comes a total larger than for any of the wet stations in the English or Scotch lake districts except the single station of Seathwaite.

As compared with previous years, Table II. shows that the Heaviest Falls were slightly greater than usual, and that they mostly occurred in wet districts.

Tables III. and IV. bring out very clearly the exceptional character of the Cranmer Hall fall. They show that on July 11th there fell 4·48 in. out of a yearly total of only 27·72 in., *i.e.*, 16·2 per cent., or practically $\frac{1}{6}$th of the fall in the whole year came down in that one day. Table IV., going back for 28 years, and based upon about

34,000 records, gives only four records equally remarkable. It may be well to set them out in full :—

Date.	County.	Station.	Yearly Total. in.	Fall in Day. in.	Fall in Day. per cent.
1867—July 25...	Kent	Sittingbourne (Hartlip) ...	26·84	4·78	17·7
1870—Sept. 7...	Sutherland	Tongue House	35·10	6·00	17·1
1889—Sept. 2...	Essex	Romford (N. Ockendon)...	26·94	4·45	16·5
1890—July 17...	Bucks.....	Slough (Langley)	21·39	3·68	17·2
1893—July 11...	Norfolk ...	Cranmer Hall	27·72	4·48	16·2

As regards the whole country, as represented in Table V. by the results of perfect daily records from 2,267 stations, we see that, owing to the dryness of the year, the percentages are a trifle higher than usual, though the Max. falls themselves were more than 10 per cent. below their average amount.

Another mode of checking this was given in *British Rainfall*, 1889, page [78], and we now give it, completed up to date in the following table :—

Max. Falls in each year exceeding 2·00 *in., and exceeding* 3·00 *in.*

Year.	Total number of records.	Falls of 2·00 in. or more. Number.	Falls of 2·00 in. or more. Per cent. of total No.	Falls of 3·00 in. or more. Number.	Falls of 3·00 in. or more. Per cent. of total No.
1882	1463	140	9·6	8	0·6
3	1505	170	11·3	23	1·5
4	1691	138	8·2	9	0·5
5	1801	179	10·0	24	1·3
6	1718	158	9·2	44	2·6
7	1921	52	2·7	4	0·2
8	1974	374	18·9	34	1·7
9	1812	170	9·4	24	1·3
1890	2081	345	16·6	54	2·6
1	2218	270	12·2	39	1·8
2	2231	470	21·1	81	3·6
Mean	1856	224	11·7	31	1·6
1893	2267	183	8·1	29	1·3
Diff.	+411	—41	—3·6	—2	—·3

The means and differences in this table are not readily intelligible, because of the great increase in the number of records available, but if the last three years (in which the records have been practically equal in number) are taken, we find an immense difference in the number of heavy falls, *e.g.* :

	Falls above 2 inches.	Falls above 3 inches.
1891	270	39
1892	470	81
1893	183	29

Thus showing, as did Table V., that heavy falls were rare in 1893.

TABLE I.—*Maximum Falls in* 1893.

Date.	Div.	Station.	Depth.	Per Cent.	Fall in year.
Feb. 13 ...	X.	Seathwaite	4·96in.	3·5	140·66 in.
July 11 ...	IV.	Fakenham (Cranmer Hall) ..	4·48 ,,	16·2	27·72 ,,
Dec. 24 ...	X.	Buttermere (Hassness)	4·37 ,,	4·3	102·55 ,,
Nov. 28 ...	XVIII.	Ben Nevis Observatory	4·29 ,,	2·6	164·93 ,,
June 27 ...	XXIII.	Stewartstown (Ardtrea Rec.)	4·16 ,,	12·0	34·61 ,,
Feb. 13 ...	X.	Dungeon Ghyll..... ...	4·00 ,,	3·6	109·89 ,,
Nov. 28 ...	XVIII.	Glencarron Lodge	3·94 ,,	3·6	109·93 ,,
Feb. 13 ...	VIII.	Duddon Valley (Seathwaite Vic.)	3·80 ,,	4·7	80·17 ,,
,, ,, ...	X.	Borrowdale Vicarage	3·77 ,,	3·7	102·42 ,,
Oct. 24 ...	XV.	Loch Eil (Conaglen)	3·60 ,,	3·7	96·04 ,,
June 27 ...	XXIII.	Dungannon (Rockdale)	3·57 ,.	10·2	35·04 ,,
,, 23 ...	XIII.	Pentland Hills (Glencorse Res.)	3·50 ,,	10·2	34·20 ,,
Oct. 24 ...	XVIII.	Glenquoich	3·40 ,,	2·7	124·22 ,,
,, 16 ...	XI.	Oakley Quarries	3·22 ,,	3·6	89·46 ,,
,, 24 ...	XVIII.	Invergarry.....	3·20 ,,	5·1	62·48 ,,
Dec. 2 ...	,,	Loch Shiel (Glenaladale).....	3·18 ,,	2·7	118·53 ,,

TABLE II.—*Comparison of Maximum Falls with those in previous years*

	MEAN.			ABSOLUTE.			
Years.	Depth.	Per Cent.	Mean total fall at these stations.	Depth.	Per Cent.	Station.	Division.
	in.		in.	in.			
1865 ...	3·67	6·4	61·8	6·41	5·5	Seathwaite.....	X.
1866 ...	3·40	—4·4	86·2	6·38	3·6	Seathwaite.....	,,
1867 ...	3·17	9·0	— 42·5	4·78	+17·7	Hartlip	II.
1868 ...	3·32	6·1	65·9	5·60	4·8	Camusinas.....	XV.
1869 ...	3·68	5·0	77·7	6·70	4·5	Seathwaite.....	X.
1870 ...	3·20	7·5	43·8	6·00	17·1	Tongue	XIX.
1871 ...	3·08	5·7	61·6	4·24	9·6	Melbury.....	V.
1872 ...	4·10	6·6	73·1	5·82	3·2	Seathwaite.....	X.
1873 ...	2·97	6·2	60·7	4·20	—2·9	Seathwaite	,,
1874 ...	3·96	4·6	86·5	5·32	4·4	Bryn Gwynant	XI.
1875 ...	4·52	7·8	63·9	5·33	9·7	Newport W. W.	,,
1876 ...	3·37	5·9	57·6	4·50	5·5	Foffany	XXIII.
1877 ...	3·77	4·6	93·4	4·98	5·3	Skye, Portree..	XVIII.
1878 ...	3·57	7·4	57·2	4·24	8·6	Springfield ...	XI.
1879 ...	3·66	+9·5	50·4	—4·05	4·1	Little Langdale	X.
1880 ...	3·50	7·7	51·1	4·75	3·9	Seathwaite.....	,,
1881 ...	3·65	4·9	83·1	5·42	4·7	Sligachan	XVIII.
1882 ...	3·28	4·5	84·3	4·51	3·0	Seathwaite ...	X.
1883 ...	3·69	6·1	72·4	5·27	9·0	Glenesmoel ...	XXI.
1884 ...	3·45	4·7	80·7	6·78	5·0	Seathwaite ...	X.
1885 ...	3·45	5·8	68·2	4·62	3·2	Seathwaite ...	,,
1886 ...	3·77	7·7	58·7	4·20	9·9	Little Bredy ...	V.
1887 ...	—2·83	6·1	56·8	4·93	13·0	Galway Q.C....	XXII.
1888 ...	4·20	5·9	77·0	5·20	5·4	Wythburn Vic.	X.
1889 ...	3·89	9·9	49·2	4·45	16·5	N. Ockendon..	IV.
1890 ..	+5·01	6·9	95·1	+7·29	3·7	Ben Nevis Obs.	XVIII.
1891 ...	4·38	4·7	+108·4	6·14	4·2	Seathwaite.....	X.
1892 ...	4·47	7·9	70·1	5·80	4·5	Seathwaite.....	,,
Mean ...	3·68	6·4	69·2	5·28	6·9	.....	...
1893 ...	3·84	5·8	89·6	4·96	3·5	Seathwaite.....	X.
Diff. ...	+ ·16	— ·6	+20·4	— ·32	—3·4	.....	...

TABLE III.—*Maximum Percentages in* 1893.

Date.	Div.	Station.	Per Cent.	Depth.	Fall in year.
July 11 ...	IV.	Fakenham (Cranmer Hall) ..	16·2	4·48 in.	27·72 in.
Oct. 9 ...	III.	Slough (Upton Hall)	12·6	2·22 ,,	17·57 ,,
,, ,, ...	,,	Watford (Kytes)	12·3	2·94 ,,	23·89 ,,
June 27 ...	XXIII.	Stewartstown (Ardtrea)	12·0	4·16 ,,	34·61 ,,
July 11 ...	IV.	Little Saxham Rectory	12·0	3·00 ,,	24·97 ,,
Oct. 9 ...	II.	Old Windsor (Beaumont Col.)	11·9	2·57 ,,	21·66 ,,
May 17 ...	VII.	Grassmoor Colliery	11·9	2·46 ,,	20·63 ,,
Oct. 9 ...	III.	Slough (Langley).....	11·9	2·36 ,,	19·80 ,,
,, ,, ...	II.	Windsor (Royal Gardens) ...	11·7	2·34 ,,	19·99 ,,
,, ,, ...	,,	Virginia Water (Portnall Park)	11·6	2·67 ,,	22·96 ,,
July 11 ...	VII.	Derby (Wild St.)	11·5	2·42 ,,	21·13 ,,
June 23 ...	XIII.	Moorfoot Hills (Rosebery) ...	11·4	3·05 ,,	26·72 ,,
Oct. 9 ...	II.	Egham (Coopers Hill).....	11·4	2·48 ,,	21·81 ,,
July 8 ...	X.	Newcastle (Clifton Road) ...	11·3	2·44 ,,	21·60 ,,
June 23 ...	XIII.	Moorfoot Hills (Gladhouse)..	11·1	2·98 ,,	26·87 ,,
July 12 ...	IV.	Cawston.....	11·0	2·41 ,,	21·92 ,,

TABLE IV.—*Comparison of Max. Percentages with those in previous years.*

	MEAN.			ABSOLUTE.			
Years.	Per Cent.	Depth.	Mean total fall at these Stations.	Per Cent.	Depth.	Station.	Division.
		in.	in.		in.		
1865 ...	9·9	2·62	28·4	13·0	4·40	Fleckney.....	VII.
1866 ...	8·1	2·31	29·3	10·0	—2·48	Burton	VI.
1867 ...	11·0	2·85	25·3	+17·7	4·78	Hartlip	II.
1868 ...	8·6	2·55	30·1	11·0	4·00	Tongue	XIX.
1869 ...	7·9	2·17	27·9	10·0	3·40	Tillydesk	XVII.
1870 ...	10·0	2·34	22·9	17·1	+6·00	Tongue	XIX.
1871 ...	9·0	2·43	26·8	11·5	3·62	Warter	IX.
1872 ...	8·1	3·43	+42·5	10·0	3·70	Hillington Hall	IV.
1873 ...	9·7	2·39	24·7	11·8	2·77	Oscott	VI.
1874 ...	9·2	2·16	23·7	11·9	2·50	Welwyn.. [Hall	III.
1875 ...	10·2	+3·76	37·5	13·2	3·95	Letheringsett ...	IV.
1876 ...	— 7·4	2·49	33·7	— 8·5	3·70	Cragside	X.
1877 ...	8·2	2·73	33·1	9·3	3·09	Wellington.....	VI.
1878 ...	10·2	3·05	30·0	11·8	3·90	Haverstock Hill	I.
1879 ...	10·9	3·31	30·5	12·3	3·80	Cambridge M. V.	III.
1880 ...	9·5	3·06	32·3	11·7	3·34	Marmont Pr. L.	,,
1881 ...	8·1	2·42	30·3	10·6	3·20	Aboyne Castle..	XVII.
1882 ...	7·7	2·54	33·4	9·1	2·80	Bothalhaugh ...	X.
1883 ...	9·7	3·00	31·1	12·3	4·31	Skegness.....	VII.
1884 ...	11·7	2·33	—20·0	13·8	2·66	Diss(Thelveton)	IV.
1885 ...	8·9	2·71	30·7	9·6	2·62	Beccles, Ellough	,,
1886 ...	10·1	3·32	32·7	11·5	4·10	Methley Park...	IX.
1887 ...	9·5	—2·11	21·9	13·0	4·93	Galway	XXII.
1888 ...	10·9	3·05	28·3	11·8	3·24	Rothamstead ...	III.
1889 ...	12·7	3·51	27·8	16·5	4·45	N. Ockendon...	IV.
1890 ...	+14·4	3·60	25·1	17·2	3·68	Slough, Langley	III.
1891 ...	9·7	2·67	27·6	14·4	4·00	Sunnyside Aslm	XVI.
1892 ...	12·3	3·37	27·4	15·0	4·27	Tyntesfield	V.
Mean..	9·8	2·80	29·1	12·3	3·70	.....	...
1893 ...	12·0	2·81	23·4	16·2	4·48	Cranmer Hall...	IV.
Diff. ...	+ 2·2	+ ·01	— 5·7	+ 3·9	+ ·78	.....	...

TABLE V.—*Comparison of the Mean of all the Maximum Falls of* 1893 *with similar data for previous years.*

Years.	Number of Returns.	Mean Per-centage.	Mean Amount.	Mean Total Fall in year.	Ratio taking 34=100.	Total Fall being assumed =34in. Mean Max. =
			in.	in.		
1865.....	481	5·1	1·70	33	97	5·0 per cent
1866.....	590	3·7	1·48	40	118	4·4 ,,
1867.....	584	4·6	1·44	31	91	4·2 ,,
1868.....	676	4·3	1·43	33	97	4·2 ,,
1869.....	637	4·2	1·42	34	100	4·2 ,,
1870.....	687	4·9	1·30	27	79	3·8 ,,
1871.....	752	4·9	1·49	30	88	4·4 ,,
1872.....	743	— 3·4	1·59	+ 47	+ 138	4·7 ,,
1873.....	809	4·6	1·35	29	85	4·0 ,,
1874.....	1010	4·4	1·41	32	94	4·1 ,,
1875.....	1081	5·0	+1·83	37	109	+5·4 ,,
1876.. ...	1112	3·9	1·49	38	112	4·4 ,,
1877.....	1180	3·8	1·56	41	121	4·6 ,,
1878.....	1186	4·3	1·49	35	103	4·4 ,,
1879.....	978	4·2	1·52	36	106	4·5 ,,
1880.....	1117	4·8	1·72	36	106	5·1 ,,
1881.....	1194	4·1	1·45	35	103	4·3 ,,
1882.....	1463	3·6	1·42	39	115	4·2 ,,
1883.. ...	1505	4·0	1·41	35	103	4·1 ,,
1884.....	1691	4·8	1·32	28	82	3·9 ,,
1885.....	1801	4·5	1·41	31	91	4·2 ,,
1886.....	1718	4·6	1·64	35	103	4·8 ,,
1887.....	1921	4·5	—1·14	— 25	— 74	—3·4 ,,
1888.....	1974	4·4	1·41	32	94	4·1 ,,
1889.....	1812	4·8	1·41	29	85	4·1 ,,
1890.....	2081	5·0	1·46	29	85	4·3 ,,
1891.....	2218	4·1	1·47	35	103	4·3 ,,
1892.....	2231	+ 5·4	1·62	30	88	4·8 ,,
Mean ...	1258	4·4	1·48	34*	99	4·4 ,,
1893.....	2267	4·8	1·30	27	79	3·8 ,,
Diff.....	+1009	+ ·4	— ·18	— 7	— 20	— ·6 ,,

* Really 33·64, hence value in next column is 99 not 100.

DROUGHTS IN 1893.

In dealing with exceptional phenomena, one is strongly tempted to do so in an exceptional way; but, as we have often stated, our belief is that in rainfall work the essentials are accuracy, uniformity and comparability.

The system of tabulating droughts which we adopted in 1888, has met with general approval, and has proved itself suitable even for the extremely unusual phenomena of 1893.

We therefore adhere to the practice adopted in previous volumes, but give some additional reports and commentaries (with maps) upon them.

It will be remembered that after considerable discussion we adopted in 1887 the following definitions of droughts:—

ABSOLUTE DROUGHTS.—Periods of *more than* 14 consecutive days absolutely without R.

PARTIAL DROUGHTS.—Periods of *more than* 28 consecutive days, the aggregate rainfall of which does not exceed 0·01 in. per diem.

For 1888 we selected fifty stations nearly equally spread over the British Isles, and for each subsequent year we have employed as the basis of this section the same stations whenever possible, and when not, then substitutes from the nearest available records. This, therefore, ensures a very close approach to absolute uniformity and comparability.

The following table gives an abstract for 1893 and for four previous years:—

ABSOLUTE DROUGHTS.

	No. of stations.	Number.	Duration. Average.	Duration. Greatest.	Stations without one.
1888	50	17	17 days	20 days	35
1889	50	42	21 ,,	30 ,,	13
1890	50	13	18 ,,	20 ,,	39
1891	50	26	18 ,,	34 ,,	28
1892	50	36	16 ,,	20 ,,	25
1893	50	39	20 ,,	44 ,,	23

PARTIAL DROUGHTS.

	No. of stations.	Number.	Duration. Average.	Greatest.	Stations without one.
1888	50	4	42 days	50 days	46
1889	50	38	34 ,,	45 ,,	15
1890	50	3	30 ,,	31 ,,	47
1891	50	38	36 ,,	49 ,,	14
1892	50	17	35 ,,	64 ,,	33
1893	50	53	51 ,,	114 ,,	10

The first departure from the practice of previous years has been to double the number of returns examined for droughts and tabulated, but in order to ensure comparability with previous years, the values are given in the above abstracts for the 50 stations as usual.

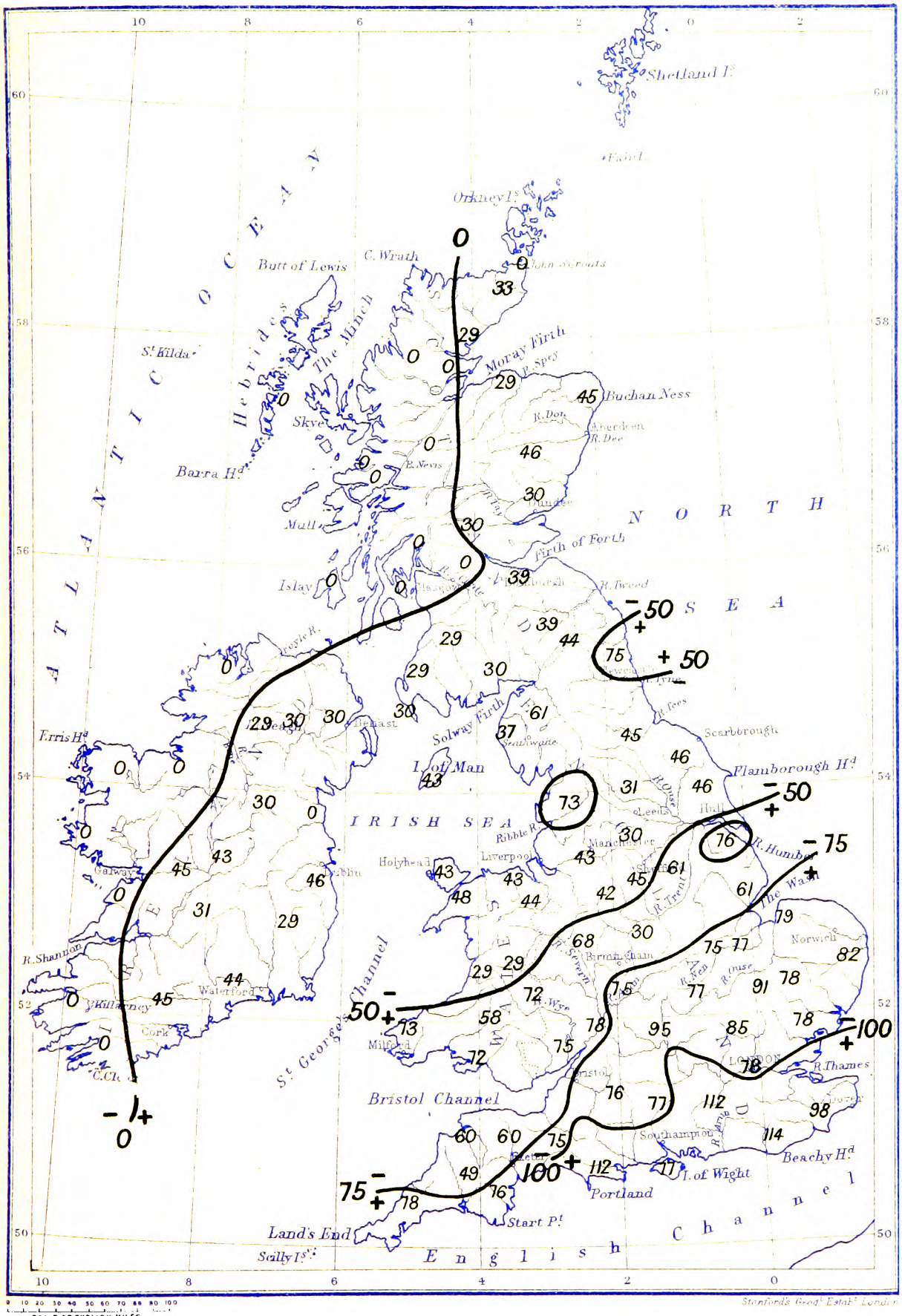
It will be seen that as regards the number of absolute droughts and their average length, 1893 was inferior to so recent a year as 1889, but as regards the longest absolute drought, 1893 is far to the front. The longest at any of the 50 stations in any of the previous five years, was one instance of 34 days. In 1893 we have cases of 36, 39 and 44 days respectively.

Although at these typical stations the longest absolute drought was 44 days, much longer periods are reported for many stations, especially in Kent and Sussex. There was there practically a two months' drought, March 17th to May 16th, but very curiously, exactly in the middle, on April 16th, a small fall occurred at many stations; the largest record was only 0·06 in. at Penshurst, and at most stations it was 0·02 in. only, but many reported nothing at all. Hence we get the following remarkable list:—

Absolute Droughts of more than 50 *days.*

STATION.	Began.	Ended.	Days.
Twickenham (Sewage Works)	March 4	May 14	72
London (Mile End)	,, 4	,, 15	73
Acrise	,, 17	,, 14	59
Ashford (Pluckley)	,, 18	,, 15	59
,, (Westwell Vic.)	,, 17	,, 14	59
Maidstone (Mount House)	,, 18	,, 15	59
,, (Hospital)	,, 18	,, 16	60
Lynsted	,, 22	,, 16	56
North Foreland	,, 22	,, 14	54
Higham (Oakleigh)	,, 17	,, 16	61
St. Peter's	,, 18	,, 14	58
Lewes (Falmer)	,, 17	,, 15	59
Hastings (Newgate Res.)	,, 17	,, 15	60
Winchelsea (The Friars)	,, 17	,, 15	60
Hayward's Heath	,, 17	,, 15	60
Worth (South Hill)	,, 17	,, 14	59
Hurst Castle	,, 18	,, 15	59
Lyss (Lingwood)	,, 16	,, 15	61
Felthorpe	,, 12	April 30	50
Crewkerne (Bincombe)	,, 17	May 15	60

DURATION (IN DAYS) OF THE PARTIAL DROUGHT OF 1893.



SCALE OF ENGLISH MILES

Stanford's Geog.l Estab.t London

to face p.(138)

But it was the Partial Drought which was the feature of 1893, and one which possibly few of us will live to see repeated. With the exception of one of 64 days at Belfast in 1892, there had been no partial drought exceeding 50 days at any of the 50 stations in the last five years—in 1893 the average duration was 51 and the maximum 114*—that is to say, more than double the usual extreme, and nearly double the extreme yet recorded.

It was evidently important, both with reference to meteorology and agriculture, to examine the geographical distribution of this remarkable occurrence. We therefore plotted on a map the duration of the spring drought at the 100 stations (representing the usual 50 as above explained) quoted on pp. [142—147], and this map is reproduced herewith. It will be seen that the Partial Drought did not occur at all in the West of Ireland or the West of Scotland, and that it did not exceed 50 days (except in isolated localities) anywhere N.W. of a line running from Haverfordwest to Hull. Roughly parallel with that line, another from Bristol to Boston has S.E. of it the great area in which the drought, if not absolutely unprecedented, was extremely unusual; for all stations S.E. of that line had a Partial Drought exceeding 75 days. Lastly, along the south of England and extending to the suburbs of the metropolis and into S. Essex, we have an area with Partial Droughts exceeding 100 days.

This circumstance is so rare that we have devoted much time to its careful study, and give in the special table on the next page the details for 25 stations at each of which the Partial Drought reached or exceeded 115 days.

It will be noticed that south of the line of 100 days' drought there are two entries of fewer than 100 days, viz., 98 at Hythe and 77 in the I. of Wight. These are, however, due to local showers not affecting adjacent stations, but the Isle of Wight did not suffer so much as the adjacent mainland.

It is rather curious that two out of the highest three values —droughts exceeding 120 days—are on promontories or projecting parts of the coast. We have 127 at Dungeness, 126 at East Dean (near Beachy Head), and 128 at North Ockendon, Romford, Essex.

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* We refer here solely to the following regular table; much longer periods have been found at other stations, as will be explained later on.

Stations at which Partial Drought Prevailed for 115 *days or more.*

Div.	COUNTY.	STATION.	Began.	Ended.	Lasted.	Amount.
					Days.	in.
II.	Surrey ...	Wonersh (Shamley Green)	Mar. 2	June 25	116	1·13
,,	Kent	Dungeness	Feb. 27	July 3	127	1·27
,,	,, ...	Sevenoaks (Purleigh).....	Mar. 2	June 25	116	1·12
,,	,, ...	Reculver (Brook)	,, 2	,, 22	115	1·12
,,	,, ...	Wilmington (Kent W.W.)	,, 1	,, 25	117	1·16
,,	,, ...	Beckenham (Foxgrove)	Feb. 27	,, 21	115	1·11
,,	,, ...	Erith (Crossness)	,, 27	,, 21	115	1·00
,,	,, ...	Higham (Oakleigh).....	,, 27	,, 21	115	1·14
,,	Sussex ...	Arundel (Yapton)	Mar. 1	,, 25	117	1·17
,,	,, ...	,, (Clapham Rec.)	,, 1	,, 24	116	1·15
,,	,, ...	Steyning	,, 1	,, 25	117	1·12
,,	,, ...	Eastbourne (East Dean)	Feb. 28	July 3	126	1·18
,,	,, ...	,, (Wilmington Square)..	Mar. 2	June 24	115	1·14
,,	,, ...	Brighton (Old Steine).....	,, 1	,, 25	117	1·14
,,	,, ...	,, (W.W. Goldstone Botm.)	,, 1	,, 23	115	1·09
,,	,, ...	,, (W.W. Lewes Road).....	,, 1	,, 23	115	1·10
,,	,, ...	St. Leonards (The Grove)	Feb. 28	,, 22	115	1·11
,,	,, ...	Hastings (Newgate Res.)	,, 28	,, 23	116	1·15
,,	Hants ...	Winchfield (Elvetham Park)	Mar. 3	,, 27	117	1·07
,,	,, ...	Farnborough School	,, 3	,, 26	116	1·11
III.	Bucks ...	Slough (Langley).....	,, 1	,, 23	115	1·11
IV.	Essex.....	Shoeburyness	Feb. 23	,, 21	119	1·15
,,	,, ...	Romford (North Ockendon).....	Mar. 2	July 7	128	1·23
V.	Dorset ...	Corfe Castle (Creech Grange).....	,, 4	June 26	115	1·01
,,	Cornwall.	Falmouth (Carclew)	,, 2	,, 24	115	1·09

It will be seen that in the extreme case the values practically amount to *four months with one inch of rain*—that is to say, about one-eighth of the usual fall. Were we not justified in saying that possibly few of us would live to see a more remarkable drought?

Those who desire further information upon the subject may be glad of the following references:—

Various papers in *Meteor. Mag.*, April to August, 1893.

The Spring Drought of 1893, by G. J Symons.—*Jour. of Roy. Agricultural Soc.* June, 1893.

Droughts in Guernsey during the fifty year period, 1843–93, by A. Collenette.—*Tran. Guernsey Soc. of Nat. Science*, 1893.

The Great Drought of 1893, by F. J. Brodie.—*Quar. Jour. Roy. Met. Soc.*, January, 1894.

There are very many modes of considering dry periods, but having adopted that which seemed to us best, we have adhered to it—not, we hope, from any partiality for our own proposal, but because it is very undesirable to run the risk of confusion by adopting any other, unless and until ample evidence proves that our own ought to be suppressed. On the other hand, the following table is undeniably of interest, and we have Mr. Bushell's permission to print it.

It will be seen that in all but the five starred instances the fall was more than three times that permissible during a "Partial Drought," viz., ·01 in. *per diem*, and in the driest five periods it was more than double that permissible during a "Partial Drought." This indirectly seems to show not merely that the drought of 1893 in Cheshire was trifling as compared with what it was in the South (as has already been shown by the map), but also that droughts in Cheshire are rarely serious.

Dry Periods of 90 *days or upwards at Hinderton, Cheshire.*

Lat. 53° 17′ 48″ N. ; Long. 3° 2′ 20″ W.

Receiver of Rain-gauge 1 ft. above grass, and 215 ft. above mean sea level.

		Days.	Total Rain. in.	Daily Average. in.
1869.....	May 27th to Sept. 4th	101	3·40	·033
1870.....	May 1st to August 3rd	95	2·23*	·023
1870–1...	Dec. 21st to April 10th.....	111	3·30*	·030
1873.....	March 31st to July 2nd.....	94	3·59	·038
1873–4...	Dec. 1st to July 11th	223	7·78	·035
1875.....	Jan. 30th to April 30th.....	91	2·81	·031
1878.....	Jan. 30th to May 1st.....	92	3·40	·037
1879–80.	Oct. 27th to Feb. 4th	101	3·49	·034
1883.....	Feb. 15th to May 18th	93	2·99	·032
1884.....	March 21st to June 28th	100	3·15	·032
1887.....	Feb. 1st to May 16th	105	2·82*	·027
1887–8...	Dec. 20th to March 20th	91	2·86	·031
1888–9...	Nov. 29th to March 6th	97	3·75	·039
1890.....	Feb. 1st to May 1st	90	3·24	·036
1890–1...	Dec. 5th to March 5th	91	2·06*	·023
1893.....	March 7th to June 21st	107	2·69*	·025

No periods were taken out unless they extended to 90 or more days, with a daily average rainfall of less than 0·04 inch.

R. BUSHELL.

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
							in.
London (Camden Square), N.W..	Mar. 18	April 15	29	Feb. 28	May 16	78	·73
Middlesex.	June 7	June 21	15				
Dorking (Abinger Hall)	Mar. 17	April 15	30	Mar. 2	June 21	112	1·07
Surrey.	April 20	May 15	26				
Hythe.....	Mar. 17	April 12	27	Mar. 17	June 22	98	·90
Kent.	April 14	May 16	33				
	June 6	June 21	16				
Hailsham	Mar. 17	April 5	20	Mar. 1	June 22	114	1·11
Sussex.	April 7	May 15	39				
	May 30	June 18	20				
Newport (Lugley House)	Mar. 17	April 15	30	Mar. 1	May 16	77	·75
Isle of Wight.	April 30	May 14	15	May 20	June 21	33	·29
				Aug. 4	Sept. 6	34	·29
Winchester (Harestock).....	Mar. 18	April 15	29	Mar. 1	May 16	77	·69
Hants.	April 30	May 14	15				
Welwyn (Datchworth Rectory)..	Mar. 17	April 15	30	Mar. 5	May 28	85	·85
Herts.	April 30	May 14	15				
Oxford (Mag. Coll. Laboratory)..	Mar. 17	April 15	30	Mar. 1	June 3	95	·94
Oxford.				Aug. 21	Sept. 27	38	·38
Towcester (Whittlebury)	Mar. 4	April 16	44	Mar. 1	May 16	77	·76
Northampton.				May 20	June 17	29	·27
Maxey Vic. [Market Deeping] ...	Mar. 17	April 15	30	Mar. 1	May 16	77	·66
Northampton.	June 7	June 21	15				
Cambridge (Sidney Street).....	Mar. 23	April 15	24	Feb. 27	May 28	91	·80
Cambridge.							
Colchester (Hill House, Lexden).	Mar. 18	April 15	29	Feb. 28	May 16	78	·61
Essex.				May 22	June 21	31	·29
Ixworth (Walsham-le-Willows)..	Mar. 18	April 15	29	Feb. 28	May 16	78	·76
Suffolk.							
Geldeston [Beccles].....	Mar. 19	April 11	24	Feb. 28	May 20	82	·61
Norfolk.				Aug. 27	Sept. 25	30	·26
Terrington.....	Mar. 17	April 15	30	Feb. 27	May 16	79	·65
Norfolk.							
Calne (High Street)	Mar. 18	April 15	29	Mar. 1	May 15	76	·69
Wilts.							
Corfe Castle (Furzebrook)	Mar. 17	April 21	36	Mar. 2	June 21	112	1·11
Dorset	May 20	June 13	25				

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
							in.
Torquay (Grey's Lodge)	None			Mar. 1	May 15	76	·75
Devon.				May 20	June 24	36	·34
Polapit Tamar [Launceston]	April 2	April 21	20	Mar. 4	April 21	49	·49
Devon.	May 24	June 12	20	May 21	June 21	32	·23
Bampton (Huntsham).....	April 2	April 22	21	Mar. 16	May 14	60	·45
Devon.				May 21	June 21	32	·26
Bideford (Northam).....	April 2	April 21	20	Mar. 17	May 15	60	·50
Devon.	April 30	May 14	15	May 20	June 21	33	·23
	May 22	June 13	23				
St. Austell (Trevarna)	April 2	April 21	20	Mar. 1	May 17	78	·73
Cornwall.	May 31	June 21	22	May 20	June 22	34	·31
	Aug. 22	Sept. 5	15				
Ilminster (White Lackington) ...	None			Mar. 2	May 15	75	·62
Somerset.				May 20	June 24	36	·29
Ross (The Graig)	None			Feb. 26	May 14	78	·66
Hereford.							
Kington (Lynhales)...	April 1	April 15	15	Mar. 4	May 14	72	·66
Hereford.				Aug. 21	Sept. 21	32	·26
Weston Park [Shiffnal]	None			Mar. 7	May 13	68	·68
Stafford.							
Burton (Stapenhill).....	June 4	June 21	18	Mar. 2	Mar. 31	30	·30
Stafford.				May 24	June 21	29	·27
Leek (Wall Grange).....	None			Mar. 5	April 15	42	·37
Stafford.							
Alcester (Ragley Hall)	Mar. 17	Mar. 31	15	Mar. 1	May 14	75	·72
Warwick.							
Market Overton	Mar. 18	April 5	19	Mar. 2	May 15	75	·68
Rutland.	June 7	June 21	15				
Wrangle.....	Mar. 17	April 12	27	Mar. 1	April 30	61	·59
Lincoln.							
Grimsby (Aylesby)	Mar. 17	Mar. 31	15	Mar. 1	May 15	76	·76
Lincoln.	June 7	June 21	15				
Worksop (Hodsock Priory)	None			Mar. 17	May 16	61	·60
Notts.							
Chesterfield (Gas Works)	June 7	June 21	15	Mar. 2	April 15	45	·41
Derby.							

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
							in.
Manchester (Withington)	None			Mar. 4	April 15	43	·42
Lancashire.				May 24	June 21	29	·28
St. Michael's-on-Wyre	Mar. 18	April 3	17	Mar. 4	May 15	73	·70
Lancashire.				May 23	June 21	30	·23
Wakefield (Stanley Grange)	None			Mar. 17	April 15	30	·26
York, W.R.				April 18	May 16	29	·26
Knaresboro' (Farnham)	Mar. 17	Mar. 31	15	Mar. 1	Mar. 31	31	·30
York, W.R.				April 17	May 15	29	·18
Driffield (York Road)	June 7	June 21	15	Mar. 1	April 15	46	·44
York, E.R.							
Pickering (The Rectory).....	June 7	June 21	15	Mar. 1	April 15	46	·37
York, N.R.							
Darlington (South End)	None			Mar. 2	April 15	45	·39
Durham.							
Morpeth (Bothalhaugh)	Mar. 27	April 14	19	Mar. 2	May 15	75	·74
Northumberland.							
Pawston [Coldstream].....	None			Mar. 2	April 14	44	·41
Northumberland.							
Whitehaven (Irish Street)	April 1	April 15	15	Mar. 10	April 15	37	·37
Cumberland.							
Blencowe School [Penrith].....	April 1	April 15	15	Mar. 17	May 16	61	·56
Cumberland							
Chepstow (Shirenewton Hall) ..	None			Mar. 1	May 14	75	·69
Monmouth							
Oystermouth (Newton)	April 1	April 21	21	Mar. 5	May 15	72	·63
Glamorgan.				May 21	June 21	32	·32
Llandovery	None			Mar. 4	April 30	58	·43
Carmarthen.							
Haverfordwest (High Street) ...	None			Mar. 5	May 16	73	·73
Pembroke.				May 22	June 22	32	·30
Aberystwith (Gogerddan)	None			April 2	April 30	29	·13
Cardigan.							
Newtown (Dolfor)	None			Mar. 3	Mar. 31	29	·27
Montgomery.							

STATION & COUNTY	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
							in
Halkyn .... *Flint.*	None			Mar. 4	April 15	43	·40
Ruabon (Wynnstay) ..... *Denbigh.*	None			Mar. 4	April 16	44	·40
Carnarvon (Cocksidia)..... *Carnarvon.*	April 1	April 15	15	Mar. 7	April 23	48	·41
Llangadwaladr (Bodorgan)..... *Anglesea.*	April 2	April 16	15	Mar. 5	April 16	43	·38
Douglas (Victoria Road)..... *Isle of Man.*	April 1	April 15	15	Mar. 4	April 15	43	·29
				May 23	June 21	30	·22
Garliestown (Galloway House)... *Wigton.*	April 1	April 15	15	Mar. 17	April 15	30	·09
	June 7	June 21	15				
Cargen [Dumfries] ..... *Kirkcudbright.*	None			Mar. 17	April 15	30	·24
Melrose Asylum .... *Roxburgh.*	None			Mar. 7	April 14	39	·29
Edinburgh (Blacket Place)..... *Edinburgh.*	None			Mar. 7	April 14	39	·34
Colmonell .... *Ayr.*	None			Mar. 17	April 14	29	·21
Old Cumnock ... . *Ayr.*	None			Mar. 17	April 14	29	·18
Killearn (Old Ballikinrain) ... .. *Stirling*	None			None			
Rothesay (Crichton Road) ..... *Bute.*	June 7	June 21	15	None			
Inverary Castle ..... *Argyll.*	June 7	June 21	15	None			
Strontian (Laudale)..... *Argyll.*	None			None			
Islay (Ardbeg) ..... *Argyll.*	June 8	June 22	15	None			
Crieff (Ochtertyre) ..... *Perth.*	April 1	April 15	15	Mar. 17	April 15	30	·07
	June 8	June 22	15	April 19	May 17	29	·26

STATION & COUNTY.	ABSOLUTE DROUGHTS			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
							in.
Kirriemuir (Lintrathen)... ..... *Forfar.*	June 8	June 22	15	May 24	June 22	30	·30
Cromar (Logie Coldstone Manse) *Aberdeen.*	Mar. 18	April 9	23	Feb. 28	April 14	46	·39
Old Deer ..... *Aberdeen.*	Mar. 18	April 5	19	Mar. 4	April 17	45	·45
Elgin (Highfield) ..... *Elgin.*	None			Mar. 17	April 14	29	·25
Ullapool (Rhidorroch)..... *West Ross.*	None			None			
Alness (Ardross Castle) ..... *East Ross.*	None			None			
Borrodale (Arisaig) ..... *West Inverness.*	None			None			
N. Uist (Loch Maddy) ..... *West Inverness.*	June 7	June 22	16	None			
Fort Augustus ..... *East Inverness.*	None			None			
Golspie (Dunrobin Castle) ..... *Sutherland.*	None			Mar. 17	April 14	29	·28
Watten, H.R.S. ..... *Caithness.*	None			Mar. 13	April 14	33	·32
South Ronaldshay (Roeberry) ... *Orkney.*	None			None			
Dunmanway (Coolkelure) ..... *Cork.*	None			None			
Old Dromore..... *Cork.*	June 8	June 23	16	Mar. 2 May 21	April 15 June 26	45 37	·40 ·36
Killarney (Woodlawn) ..... *Kerry.*	None			None			
Portlaw (Mayfield) ..... *Waterford.*	None			Mar. 3 Aug. 24	April 15 Sept. 21	44 29	·43 ·25
Fethard (Mobarnane) ..... *Tipperary.*	April 1 June 8	April 15 June 22	15 15	Mar. 3	April 15	44	·39

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
							in.
Nenagh (Clashnevin) .. .. *Tipperary.*	None			May 23	June 22	31	·25
Miltown Malbay ..... *Clare.*	None			None			
Bray (Fassaroe)..... *Wicklow.*	April 1 June 7	April 15 June 21	15 15	Mar. 1	April 15	46	·27
Carlow (Browne's Hill) ..... *Carlow.*	None			Mar. 18	April 15	29	·23
Athlone (Twyford) ..... *Westmeath.*	None			Mar. 4	April 15	43	·39
Ardee (Lissrenny) .... *Louth.*	None			None			
Ballinasloe (Garbally)..... *Galway.*	April 1	April 15	15	Mar. 3	April 16	45	·39
Clifden (Kylemore House)..... *Galway.*	None			None			
Crossmolina (Enniscoe) ..... *Mayo.*	None			None			
Collooney (Markree Observatory) *Sligo.*	None			None			
Lough Sheelin (Arley)..... *Cavan.*	None			Mar. 17	April 15	30	·20
Belfast (Antrim Road) ..... *Antrim.*	June 7	June 22	16	Mar. 17	April 15	30	·25
Stewartstown (Ardtrea Rectory) *Tyrone.*	April 1 June 7	April 15 June 21	15 15	Mar. 17	April 15	30	·24
Omagh (Edenfel) ... . *Tyrone.*	April 1	April 15	15	Mar. 18	April 15	29	·29
Lough Swilly (Carrablagh) ..... *Donegal.*	None			None			

MONTHLY RAINFALL OF 1893.

A reviewer once said that *British Rainfall* did not give sufficient prominence to details of monthly rainfall. We do not think that he would say so now. The following tables pages [149] to [155], contain the fall in each month at 233 stations—*i.e.* (including the totals) more than three thousand entries, and in the monthly issues of the *Meteorological Magazine* we have already given nearly 2,000 others.

Besides these figures there are the "Observers' Notes on the Months" occupying pages [38] tc [78].

There are also the two pages of small maps, showing for 50 stations the relation of the fall in each month to the average at each of these stations.

And lastly there will be found on pages [156] and [157] an epitome of the relation of the rainfall in each month to the average, drawn up with all the above data before us. It may not be amiss to state as an illustration of the care taken to ensure accuracy, that this epitome is, as a matter of fact, prepared from three independent groups of facts, which are at last placed side by side, so that if and when the accounts differ, reference can be made to the original data and the phraseology modified to describe the facts as accurately as possible.

MONTHLY RAINFALL AT 233 STATIONS IN THE BRITISH ISLES DURING 1893.

ENGLAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
I.	Middlesex	London (Camden Sq.)	1·44	2·87	·32	·24	·80	·73	2·46	1·61	1·07	3·87	2·16	2·23	19·80
,,	,,	Pinner Hill	1·62	2·96	·46	·13	1·48	·76	2·54	1·91	1·14	4·99	2·27	2·77	23·03
II.	Surrey	Guildford (Guildown)	1·69	3·40	·46	·10	·94	·76	2·69	·95	1·69	4·94	2·36	2·32	22·30
,,	Kent	Tenterden	2·71	3·82	·53	·03	·87	1·67	2·74	1·94	3·34	3·84	2·90	3·17	27·56
,,	,,	Hythe	2·36	4·30	·70	·01	·61	·71	2·76	1·20	4·26	4·60	4·23	2·08	27·82
,,	,,	Sevenoaks (River Hill)	1·78	3·34	·38	·00	·54	·98	3·05	·89	1·75	2·75	2·09	2·60	20·15
,,	,,	Ospringe (Lorenden)	2·36	4·34	·40	·01	·88	·54	2·85	·83	2·62	2·91	3·59	2·52	23·85
,,	Sussex	Arundel (Patching)	2·07	3·39	·32	·06	·36	·82	4·81	·50	2·99	4·80	2·27	2·02	24·41
,,	,,	Maresfield (Forest Lodge)	2·34	4·00	·61	·03	·58	1·07	3·07	·81	3·39	4·88	2·40	2·78	25·96
,,	Hants	I. of Wight (Sandown)	2·60	3·69	·46	·05	1·00	1·31	5·70	·48	2·72	6·38	2·38	3·19	29·96
,,	,,	Bps. Waltham (Swanmore)	1·87	3 84	·35	·06	·73	1·03	3·54	1·21	1·52	2·93	2·43	2·57	22·08
,,	,,	Basingstoke(Sherborne S.J.)	1·83	4·00	·70	·02	·76	1·12	2·87	1·73	1·23	3·07	2·11	3·62	23·06
,,	Berks	Newbury (Welford)	2·05	4·86	·22	·01	1·01	1·01	3·36	1·43	1·23	3·24	2·48	3·34	24·24
III.	Herts	Hertford (Bayfordbury)	1·67	3·00	·37	·11	·94	·55	2·61	2·35	·88	2·91	2·60	2·39	20·38
,,	,,	Royston	1·63	2·92	·17	·13	1·15	·66	3·48	2·49	1·01	3·11	2·15	1·62	20·52
,,	Bucks	Buckingham (Adstock)	2·03	2·25	·20	·13	2·46	·72	3·61	1·25	·92	2·53	1·70	1·57	19·37
,,	Oxford	Henley-on-Thames (N. Ho.)	1·96	3·20	·17	·05	1·04	·71	3·95	1·81	·92	2·93	2·69	2·65	22·08
,,	,,	Oxford (Magdalen Coll.)	1·81	2·54	·08	·05	·77	·67	3·50	1·00	·52	2·56	1·53	1·54	16·57
,,	Northampton	Wellingborough(Swanspool)	1·66	2·16	·15	·25	1·43	·72	3·05	2·07	·74	2·50	2·00	1·60	18·33
,,	Bedford	Bedford	1·85	2·02	·17	·25	1·23	·90	4·23	2·27	·78	3·62	2·34	1·00	20·66
,,	Cambridge	Ely (Stretham)	1·38	2·41	·31	·11	1·80	1·04	4·82	3·15	·73	2·57	2·30	·96	21·58
,,	,,	Wisbech	1·68	2·31	·32	·17	1·03	1·62	2·71	1·83	·70	2·89	3·18	1·36	19·80
IV.	Essex	Loughton (High Beech)	1·52	2·76	·42	·09	·67	·72	2·30	1·66	·67	3·08	1·93	2·08	17·90
,,	,,	Chelmsford (High Street)	1·30	2·62	·30	·08	1·03	·45	2·78	1·96	·90	2·80	2·19	1·76	18·17
,,	,,	Braintree (Bocking Place)	1·43	3·20	·49	·11	·81	·60	3·92	1·34	·91	2·70	2·69	1·93	20·13
,,	Suffolk	Ipswich (Bishop's Hill)	2·69	2·55	·21	·15	1·68	·47	3·97	2·28	1·00	2·20	3·13	1·56	21·89
,,	,,	Haverhill (Great Thurlow)	1·44	2·66	·37	·11	·99	1·76	3·00	2·98	1·01	3·03	2·91	1·51	21·77
,,	,,	Framlingham(MountPleasant)	2·21	2·68	·32	·05	1·46	1·27	4·17	1·41	·76	2·15	3·33	1·50	21·31
,,	Norfolk	Geldeston [Beccles]	2·08	2·36	·27	·11	1·28	1·17	1·83	1·14	·66	1·79	3·49	1·91	18·09
,,	,,	Swaffham	2·06	2·53	·21	·06	1·19	1·29	4·86	1·87	·81	2·24	3·01	1·27	21·40
,,	,,	Holt (Letheringsett Hall)	1·98	2·58	·17	·15	·86	1·52	2·91	1·28	·53	1·68	3·63	1·71	19·00

ENGLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August	Sept.	Oct.	Nov.	Dec.	Total.
V.	Wilts	Salisbury (Alderbury)	1·59	3·66	·57	·10	·90	·69	3·06	·70	1·89	4·19	1·96	3·79	23·10
,,	,,	Trowbridge(SteepleAshton)	2·36	4·22	·52	·03	1·34	1·47	4·21	1·40	1·64	3·49	2·00	2·79	25·47
,,	,,	Marlborough (Mildenhall).	2·05	3·83	·26	·05	1·46	·97	3·91	1·29	1·55	4·01	2·49	3·06	24·93
,,	Dorset	Beaminster	3·02	5·10	·35	·11	·97	·85	4·36	1·80	1·73	3·36	2·41	4·29	28·35
,,	,,	Wimborne (Chalbury)	1·75	4 05	·28	·05	·83	1·11	4·08	·92	1·92	4·07	1·99	2·99	24·04
,,	,,	Hazelbury Bryan Rectory.	3·50	7·18	·42	·12	1·73	2·44	3·38	1·39	2·51	5·41	2·69	6·65	37·42
,,	Devon	Paignton (The College)	3·66	5·66	·33	·42	1·53	·81	3·98	1·11	1·53	3·93	1.97	5·25	30·18
,,	,,	Walkhampton(Lowery)(5in)	4·01	7·45	·53	·67	2·79	1·53	6·56	2·46	3·57	5·01	3·39	6·58	44·55
,,	,,	Ilsington (Middlecott Ho.)	4·46	8·57	·29	·40	2·09	1·10	5·35	2·25	2·23	3·86	2·99	5·68	39·27
,,	,,	Cullompton	2·61	4·89	·44	·17	2·31	·92	5·67	1·45	2·08	2·89	2·74	3·74	29·91
,,	,,	South Molton (Rose Ash)	2·60	5·25	·88	·23	2·12	·89	8·27	2·00	3·42	5·49	3·38	3·71	38·24
,,	Cornwall	Penzance (Penlee)	3·64	5·37	·20	·22	·86	1·22	5·05	1·77	3·24	3·31	3·27	5·55	33·70
,,	,,	St. Agnes	3·75	3·95	·16	·12	·95	·75	3·74	1·74	2·98	2·68	2·77	4·95	28·54
,,	,,	Bude	2·35	4·21	·47	·72	1·53	1·10	4·70	·90	3·52	3·61	2·63	4·79	30·53
,,	Somerset	Ilminster (White Lackington)	3·65	4·22	·58	·18	1·05	·60	3·92	1·62	1·52	3·46	2·40	4·58	27·78
,,	,,	Glastonbury (Street)	2·56	2·93	·28	·10	·65	·93	4·18	1·11	2·08	2·98	1·57	2·81	22·18
,,	,,	Dunster (Knowle)	4·07	5·36	·28	·13	2·62	·70	3·62	1·83	2·59	4·42	2·71	5·98	34·31
VI.	Gloucester	Clifton (Pembroke Road)	2·22	4·58	·38	·07	1·20	1·20	3·75	2·36	1·81	5·49	2·50	2·86	28·42
,,	,,	Stroud (Upfield)	2·13	3·37	·25	·04	1·79	1·41	3·13	1·81	·90	2·38	2·19	2·76	22·16
,,	,,	Fairford (Hatherop Rec.)	2·33	2·95	·11	·02	·99	·83	3·65	1·50	·68	2·76	1·84	2·03	19·69
,,	Hereford	Ross (The Graig)	2·30	2·74	·21	·20	1·66	1·08	2·92	1·37	·89	2·09	1·22	3·45	20·13
,,	Salop	Ch. Stretton (Woolstaston)	2·05	4·03	·72	·34	2·81	1·79	2·37	2·23	2·09	3·10	1·72	4·52	27·77
,,	,,	MuchWenlock(WilleyPk.)	2·00	2·82	·50	·50	1·85	3·33	2·32	1·76	1·46	2·46	1·49	3·67	24·16
,,	,,	Oswestry (Hengoed)	1·70	4·27	·72	·78	1·55	2·06	3·11	2·60	2·16	2·09	1·28	3·60	25·92
,,	Stafford	Penkridge (Rodbaston)	1·69	2·40	·42	·47	1·85	2·39	2·83	1·64	1·80	1·78	1·51	3·00	21·78
,,	,,	Burton (Shobnall)	1·26	2·41	·23	·44	2·28	·70	2·36	1·89	2·26	1·85	1·04	2·22	18·94
,,	,,	Etruria	1·59	3·11	·72	·37	2·61	1·79	4·34	2·04	2·69	1·79	1·56	3·74	26·35
,,	Worcester	Blockley	1·79	4·27	·23	·19	2·05	1·45	3·03	1·62	·97	2·00	3·25	2·60	23·45
,,	,,	Malvern (Church St.)	2·03	2·84	·49	·30	1·61	1·01	2·04	2·07	·97	1·92	1·15	3·19	19·62
,,	,,	Tenbury (Orleton)	2·28	3·63	·39	·69	2·11	1·64	1·85	2·15	1·31	2·44	1·45	4·51	24·45
,,	,,	Stourbridge (Pedmore)	2·01	2·99	·39	·47	2·28	1·76	2·04	1·46	1·15	3·04	1·71	3·94	23·24
,,	Warwick	Leamington(UpperParade)	1·45	2·92	·13	·17	2·18	·96	1·94	1·22	·79	2·17	1·65	1·64	17·22
,,	,,	Bedworth Cemetery	1·88	2·84	·36	·32	2·38	·86	1·84	2·52	1·56	2·98	1·74	2·47	21·75
VII.	Leicester	Loughboro'(Nan Pantan Res)	1·69	2·55	·20	·37	2·38	·87	2·77	1·69	1·64	1·86	1·47	2·34	19·83
,,	,,	Bottesford	1·07	2·15	·31	·28	1·34	·84	2·53	·90	·77	1·00	1·75	1·77	14·71

ENGLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
VII.	Rutland	Market Overton	1·94	2·52	·28	·37	1·49	1·00	2·65	2·27	·73	1·90	2·12	1·97	19·24
,,	Lincoln	Horncastle (Queen Street).	2·03	2·95	·54	·19	1·12	1·50	3·24	1·15	1·36	·87	2·34	2·23	19·52
,,	,,	Barton on Humber(Saxby)	1·19	2·96	·35	·38	1·28	1·67	2·03	1·62	1·53	1·30	2·83	2·24	19·38
,,	Notts	Ollerton(ThoresbyGardens)	1·51	2·85	·62	·39	2·16	1·20	3·46	2·95	1·28	1·64	1·95	2·76	22·77
,,	Derby	Stoney Middleton	1·74	5·05	·96	·69	2·89	1·67	3·83	2·77	2·50	2·08	2·11	4·23	30·52
VIII.	Cheshire	Congleton(BuglawtonVic.)	1·52	2·52	·33	·73	2·15	2·31	2·80	3·17	2·77	1·96	1·88	3·11	25·25
,,	Lancashire	Manchester (Withington).	1·39	3·06	·48	·70	1·77	1·30	2·79	2·13	3·99	2·32	1·99	3·29	25·21
,,	,,	Ormskirk (Rufford)	1·21	3·99	·66	·25	1·62	1·37	3·97	3·71	4·08	3·99	1·77	3·90	30·52
,,	,,	Burnley (Swinden, Lower)	1·53	5·12	1·17	·88	2·84	3·66	4·73	4·95	5·25	4·44	3·64	5·27	43·48
,,	,,	St. Michael's-on-Wyre	1·71	4·48	·83	·32	1·70	1·34	3·57	3·57	4·61	5·52	1·93	3·61	33·19
,,	,,	Cartmel (Pit Farm)	1·31	5·63	1·92	·81	3·56	1·58	5·10	4·96	5·10	5·65	2·83	4·30	42·75
IX.	York, W.R.	Rotherham (Moorgate Grove	1·67	2·84	·56	·39	2·55	1·26	3·57	1·68	1·22	1·56	1·69	2·85	21·84
,,	,,	Huddersfield (Dalton)	1·33	3·80	·86	·96	1·83	2·12	3·99	1·92	1·60	2·27	1·85	4·08	26·61
,,	,,	Leeds (Methley Park)	1·13	2·93	·71	·41	2·34	1·10	2·21	1·92	1·55	2·38	1·24	3·44	21·36
,,	,,	Malham Tarn	2·51	7·69	2·27	·95	3·43	3·24	5·44	5·50	5·71	6·44	4·21	5·66	53·05
,,	,,	Ripon (Mickley)	1·60	3·97	·59	·61	2·55	1·60	2·22	2·92	1·38	1·34	1·76	3·39	23·93
,,	York, E.R.	Patrington	1·11	2·37	·41	·40	1·30	1·19	2·11	2·77	1·59	1·61	2·86	1·85	19·57
,,	,,	Brantinghamthorpe	1·33	3·97	·65	·37	1·32	1·36	2·45	1·73	2·14	2·56	3·57	3·46	24·91
,,	,,	Pocklington (Warter)	1·51	2·78	·37	·40	1·85	1·35	1·74	2·24	2·54	2·34	4·36	2·41	23·89
,,	York, N.R.	Malton	1·41	3·14	·43	·44	2·39	1·15	3·17	1·69	1·33	2·03	3·32	2·79	23·29
,,	,,	Thirsk (Sowerby)	2·36	2·13	·44	·50	2·03	1·94	3·24	1·91	1·04	1·35	3·81	2·57	23·32
,,	,,	Whitby (Royal Crescent)	2·13	3·46	·08	·67	1·04	2·02	2·90	1·33	1·86	1·69	4·16	2·53	23·87
,,	,,	Lockwood Beck	2·81	2·92	·65	·55	1·68	1·51	2·94	1·84	2·41	1·15	5·51	2·46	26·43
X.	Durham	Darlington (South End)	1·92	2·29	·42	·49	2·24	·78	2·47	1·81	1·53	·99	2·36	2·06	19·36
,,	,,	Hartlepool(HurworthBurn)	1·71	2·02	1·18	1·02	2·70	1·72	3·02	1·31	·97	1·26	3·62	2·27	22·80
,,	,,	Wolsingham	2·30	4·63	·48	·37	2·92	1·55	2·95	3·09	2·78	·89	2·96	2·98	27·90
,,	Northumberland	Haltwhistle(UnthankHall)	1·31	4·00	·95	·78	2·62	2·32	2·80	3·25	3·07	2·74	2·61	3·02	29·47
,,	,,	Morpeth (Meldon Park)	1·51	3·70	·93	·46	1·55	1·04	3·36	2·17	2·04	1·09	2·70	1·29	21·84
,,	,,	Alwinton (Biddleston)	1·47	3·41	1·00	·68	1·72	1·83	4·55	3·03	1·93	1·08	4·67	2·16	27·53
,,	,,	Howick Hall	1·66	2·77	·53	·59	1·19	1·52	2·21	1·88	3·09	1·52	2·34	1·32	20·62
,,	Cumberland	Borrowdale (Seathwaite)	6·90	20·99	8·67	1·59	5·75	6·11	10·46	13·58	13·91	18·63	11·54	22·53	140·66
,,	,,	Brampton (Denton House)	1·32	3·16	1·53	·73	1·67	2·15	2·68	4·02	4·72	3·00	2·06	3·20	30·24
,,	Westmoreland	Kendal (Kent Terrace)	2·01	7·36	1·74	·86	2·56	1·08	4·71	4·93	6·27	6·17	2·43	5·67	45·79
,,	,,	Appleby	1·61	3·71	·88	·50	2·03	1·76	3·41	3·89	3·23	3·00	2·23	4·11	30·36
,,	,,	Lowther Castle	1·84	5·06	1·65	·54	2·08	2·03	3·52	4·12	3·71	4·05	2·75	5·93	37·28

MONMOUTH, WALES AND THE ISLANDS.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XI.	Monmouth.....	Chepstow (Shirenewton Hall)	2·81	6·38	·38	·20	2·61	1·83	2·90	3·38	2·13	3·72	2·80	4·27	33·41
,,	,, ...	Abergavenny(Larchfield) ..	3·37	5·30	·25	·26	3·54	·91	3·65	2·37	1·13	2·36	1·54	6·12	30·80
,,	Glamorgan.....	Cardiff Castle	2·16	5·94	·35	·25	2·49	·63	4·30	2·93	1·94	6·29	2·26	4·12	33·66
,,	,, ...	Ystalyfera (Tan-yr-allt) ...	2·48	9·40	1·07	·26	3·16	3·91	3·74	4·87	4·71	8·00	3·08	11·25	55·93
,,	Carmarthen	Carmarthen Asylum	2·95	6·26	·68	·18	1·79	2·65	3·32	3·42	2·22	7·60	3·87	6·04	40·98
,,	,, ...	Llandovery	2·34	6·13	·80	·11	2·32	2·43	3·79	3·04	3·69	6·01	3·30	6·05	40·01
,,	Pembroke	Stackpole Court	3·63	4·19	1·05	·65	·97	1·00	2·47	1·85	1·96	5·92	2·67	4·85	31·21
,,	Cardigan	Troedyraur Rectory.....	2·76	3·62	·76	·42	1·30	1·36	1·88	3·05	2·73	4·57	3·75	4·28	30·48
,,	,, ...	Aberaeron (Dolaeron).....	2·27	3·51	·56	·43	1·22	1·61	1·74	2·46	2·42	5·57	3·10	4·34	29·23
,,	Brecknock.....	Brecknock (Cantreff Rec.)	3·79	8·12	·65	·14	4·25	1·78	3·41	2·90	2·63	4·20	2·34	8·36	42·57
,,	,, ...	Newbridge (Llysdinam) ...	1·94	5·18	·72	·20	2·88	1·87	3·02	1·90	2·14	3·62	2·19	4·15	29·81
,,	Radnor	Rhayader (Nantgwilt) ...	4·00	8·70	1·30	·26	3·64	3·90	4·49	4·02	4·26	6·69	4·25	8·37	53·88
,,	Montgomery.....	Churchstoke(MellingtonHall)	2·03	4·16	·51	·19	2·33	1·14	1·73	1·93	1·64	3·72	1·60	4·77	25·75
,,	Flint	St. Asaph (Nantllys)	·96	2·22	·71	·72	·56	2·05	2·33	2·20	2·55	1·71	1·63	3·86	21·50
,,	Denbigh.....	Rosset (Trevalyn Hall) ...	1·37	2·98	·60	·77	1·42	1·29	2·82	2·44	1·77	1·72	1·05	3·65	21·88
,,	Merioneth	Oakley Quarries	4·44	12·71	3·16	·92	5·75	5·64	5·78	10·30	9·71	10·60	9·62	10·83	89·46
,,	,, ...	Corwen (Rhug Gardens) ...	1·95	5·12	·62	·63	1·13	2·29	2·99	3·96	3·34	3·01	3·89	5·15	34·08
,,	Carnarvon.....	Llanystumdwy (Talarvor)	2·17	3·78	1·18	·71	1·63	2·51	2·51	2·39	2·73	3·25	3·35	4·64	30·85
,,	Anglesey	Llanerchymedd (Llwydiarth)	2·34	3·99	·96	·85	1·36	2·03	2·24	3·34	2·73	3·66	3·22	4·58	31·30
,,	Isle of Man	Douglas (Victoria Road)...	2·44	5·57	1·01	1·44	1·52	1·41	4·00	4·00	2·67	4·63	2·31	5·50	36·50
,,	Jersey.....	St. Aubins	2·51	3·99	·61	·34	1·79	·58	2·68	1·30	5·37	4·23	3·10	3·20	29·70
,,	Guernsey	St. Peter Port	2·42	4·20	·34	·48	1·26	·98	4·64	1·49	4·54	4·11	3·19	3·34	30·99
		SCOTLAND.													
XII.	Wigton	Garliestown (Galloway House)	1·65	4·68	1·84	1·42	1·51	1·40	3·67	4·10	2·17	3·40	2·11	4·31	32·26
,,	,, ...	Corsewall	1·83	3·00	1·47	·89	1·50	·86	3·46	3·14	2·33	3·19	1·21	2·20	25·08
,,	Kirkcudbright ...	Dalbeattie(Colvend Manse)	·65	5·16	1·92	·88	3·08	2·13	1·58	4·01	2·53	4·49	1·52	5·87	33·82
,,	,, ...	New Galloway (Glenlee)...	2·63	6·71	2·71	1·39	2·82	2·03	3·48	5·54	2·32	5·88	3·89	8·60	48·00
,,	Dumfries	Moffat (Ericstane)	3·60	8·50	2·00	2·00	3·90	2·90	3·40	6·10	2·50	4·10	3·00	9·30	51·30
,,	Roxburgh	New Castleton (The Flatt).	1·50	7·30	1·50	·60	2·10	1·80	3·10	5·30	3·30	4·00	2·20	6·70	39·40
,,	,, ...	Hawick (Branxholme).....	1·71	4·07	1·14	·77	2·23	2·12	2·96	3·08	1·56	2·93	2·06	5·32	29·95
,,	,, ...	Jedburgh	1·74	2·67	·80	·62	2·47	2·50	3·19	2·45	1·94	1·75	2·86	2·52	25·51
XIII.	Selkirk	The Hangingshaw	1·32	4·07	1·00	·82	2·93	2·56	2·83	3·64	1·26	2·01	2·05	5·80	30·29
,,	Peebles	Eddlestone (Portmore) ...	·90	3·15	·90	·87	1·45	4·77	2·35	3·12	1·65	2·80	2·57	3·05	27·58

SCOTLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XIII.	Berwick.....	Marchmont House	2·09	4·05	·98	1·25	1·76	3·08	2·69	2·30	1·08	1·55	3·64	1·96	26·43
,,	Haddington	North Berwick Reservoir	1·89	3·89	·23	·60	1·05	·54	2·17	2·10	1·56	1·83	2·78	2·30	20·94
,,	Edinburgh.....	Edinburgh (Blacket Place)	·71	2·63	·88	1·64	1·37	2·48	2·53	3·16	1·67	2·51	1·74	2·50	23·82
,,	Linlithgow	Uphall	·66	2·78	·96	·97	1·68	2·04	1·83	3·26	1·51	3·46	1·72	2·65	23·52
XIV.	Lanark	Biggar (Cambus Wallace)..	1·28	3·55	·92	·85	1·42	2·40	2·70	3·00	1·84	2·62	1·64	3·58	25·80
,,	,, ...	Hamilton (Water Works)..	·90	3·20	1·60	1·50	2·45	1·85	3·90	3·50	2·30	4·10	1·90	4·65	31·85
,,	Ayr.....	Colmonnell	2·87	3·14	2·51	1·01	1·92	2·02	3·90	4·29	3·40	7·27	3·35	5·61	41·29
,,	,, ...	Ayr (Auchinlee)	2·75	3·50	1·15	1·40	2·20	·90	4·25	2·80	2·00	5·00	1·60	4·80	32·35
,,	,, ...	Old Cumnock	1·77	4·41	1·76	1·26	2·53	1·74	4·74	3·80	3·64	5·87	3·40	5·49	40·41
XV.	Dumbarton	Arrochar	4·77	9·43	2·59	3·16	3·77	2·68	7·12	6·46	6·93	8·77	7·30	10·34	73·32
,,	Stirling	Killearn (Old Ballikinrain)...	4·40	6·72	2·12	1·36	2·48	3·14	4·41	3·84	3·43	6·36	3·81	7·65	49·72
,,	Bute	Rothesay (Barone Cott.) ...	2·49	4·27	2·05	2·93	2·70	1·39	5·08	3·67	3·48	6·60	3·74	4·80	43·20
,,	Argyll	Lochgilphead (Kilmory)...	3·90	6·37	4·05	2·77	2·75	1·09	6·31	6·36	5·15	9·27	5·67	7·96	61·65
,,	,, ...	Appin (Airds)	2·60	5·25	2·10	2·33	3·54	·89	4·50	6·50	5·54	7·35	4·30	8·25	53·15
,,	,, ...	Morvern (Drimnin)	4·71	6·72	3·16	2·17	3·45	·94	6·04	3·98	6·67	11·37	5·47	10·34	65·02
,,	,, ...	Ballachulish (Ardsheal) ...	4·78	7·38	4·55	3·34	2·96	1·12	5·46	7·18	7·85	11·38	7·65	13·25	76·90
,,	,, ...	Strontian (Laudale).....	4·92	8·72	3·47	1·85	2·81	·60	5·26	4·97	6·36	11·15	5·12	11·90	67·13
,,	,, ...	Cantire (Devaar)	1·63	3·78	1·97	1·66	1·85	1·33	3·02	3·28	2·58	4·35	3·99	5·20	34·64
,,	,, ...	Islay (Eallabus)	2·84	5·12	2·23	1·88	1·66	1·13	3·52	4·05	4·49	6·77	3·94	7·07	44·70
,,	,, ...	Jura (Ardfin)	3·83	6·08	3·43	1·41	2·51	1·23	6·02	5·46	5·48	7·68	5·39	7·56	56·08
XVI.	Clackmannan ...	Dollar	2·05	4·63	1·16	1·03	1·63	2·05	2·42	2·64	1·24	3·53	2·05	4·82	29·25
,,	Kinross	Loch Leven Sluice	1·50	4·30	1·00	1·00	1·50	3·10	2·40	3·30	1·40	2·70	1·90	3·80	27·90
,,	Fife	Kilconquhar (Balcarres) ...	1·30	4·00	·97	1·18	1·46	3·09	3·80	3·34	1·90	2·55	1·40	2·40	27·39
,,	Perth.....	Stronvar	5·68	8·92	2·59	1·44	3·71	2·51	3·95	6·12	4·54	7·23	4·24	10·68	61·61
,,	,, ...	Coupar Angus	1·18	3·05	·83	·72	1·03	1·87	2·85	2·29	1·10	2·30	1·63	2·55	21·40
,,	,, ...	Dalnaspidal H.R.S.....	4·12	7·59	2·61	2·11	1·51	2·34	5·54	5·69	4·48	6·86	4·26	10·06	57·17
,,	Forfar.....	Dundee (Broughty Ferry)..	1·25	2·98	·95	1·30	1·33	2·21	3·67	3·00	1·52	2·59	1·27	1·92	23·99
,,	,, ...	Kirriemuir (Lintrathen) ...	1·87	3·34	1·07	1·18	1·18	1·91	3·23	3·50	1·78	2·67	2·10	3·23	27·06
XVII.	Kincardine	The Burn [Brechin].....	2·00	3·10	·60	·80	1·80	2·20	2·40	3·60	3·20	2·30	3·20	2·20	27·40
,,	Aberdeen	Coldstone Manse	1·88	3·56	·36	1·05	·68	3·24	2·46	3·41	3·38	2·63	4·31	1·57	28·53
,,	,, ...	Haddo House	2·73	2·64	1·58	·95	1·02	2·45	3·39	2·11	4·88	3·60	4·00	1·93	31·28
,,	,, ...	Old Deer	2·52	3·27	·63	1·12	·98	2·57	3·23	2·40	3·84	3·09	4·11	2·47	30·23
,,	Moray	Grantown	2·72	2·56	·66	1·92	1·11	2·27	3·00	3·93	5·47	2·66	5·00	1·94	33·24
,,	,, ...	Gordon Castle	1·81	3·23	·71	1·25	1·52	2·38	3·58	5·00	6·21	3·38	4·14	1·94	35·15
,,	,, ...	Elgin.....	2·02	2·38	·90	1·09	1·36	1·92	3·53	3·77	5·09	3·36	4·34	1·93	31·69

SCOTLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XVIII.	Ross	Applecross.....	6·35	4·79	1·62	1·31	3·05	·91	4·85	4·40	7·98	8·14	5·20	8·80	57·40
,,	,, ...	Strathconan [Beauly]	5·87	5·34	3·78	2·35	2·38	1·72	2·86	3·28	7·16	9·79	8·19	10·47	63·19
,,	,, ...	Braemore House	5·10	4·56	5·34	1·30	2·86	2·08	4·40	4·21	10·97	6·68	7·35	16·60	71·45
,,	,, ...	Ardross Castle	2·25	4·41	1·90	1·83	1·00	1·24	1·87	3·15	5·42	4·57	5·02	3·77	36·43
,,	Inverness	Fort William Obs.	5·41	8·47	4·44	3·12	2·73	1·89	4·65	6·60	9·35	12·70	8·03	16·26	83·65
,,	,, ...	N. Uist (Loch Maddy) ...	3·46	5·36	1·78	1·39	1·86	2·10	2·69	6·90	7·00	6·83	4·57	7·47	51·41
,,	,, ...	Invergarry	4·58	8·67	1·23	1·55	1·46	1·05	3·26	4·15	6·56	10·30	4·87	14·80	62·48
,,	,, ...	Aviemore H.R.S.	2·89	3·87	·97	1·16	·96	2·55	1·59	3·88	3·72	3·48	3·25	3·51	31·83
,,	,, ...	Cawdor [Nairn]	1·87	3·73	1·28	1·59	1·25	3·14	2·55	2·90	4·03	3·55	3·73	2·19	31·81
XIX.	Sutherland	Invershin	2·04	3·19	·73	1·59	1·03	1·40	3·66	2·94	3·34	4·32	2·97	2·40	29·61
,,	,, ...	Dunrobin Castle	2·57	2·41	1·27	1·45	1·28	1·34	3·01	2·67	4·55	4·49	5·15	3·11	33·30
,,	,, ...	Scourie	2·54	2·62	3·70	1·36	2·67	1·65	4·56	4·37	8·14	8·64	9·51	7·12	56·88
,,	Caithness	Wick H.R.S.	3·13	2·59	1·32	·96	1·39	1·09	3·61	2·01	4·72	4·86	6·44	2·79	34·91
,,	Shetland	Sumburghead(Dunroseness)	4·29	2·74	2·51	1·20	1·46	·60	2·46	3·23	5·18	6·49	5·11	5·58	40·85

IRELAND.

XX.	Cork	Dunmanway (Coolkelure) .	6·62	9·23	·71	1·85	2·77	2·86	3·53	9·11	4·10	4·19	4·34	9·23	58·54
,,	,, ...	Cork (Clarence Place)	5·43	4·04	·40	1·35	1·50	1·54	1·57	5·42	1·31	2·49	1·97	4·98	32·00
,,	,, ...	Mallow (Old Dromore).....	4·15	4·31	·80	1·47	1·69	1·20	2·44	5·25	1·31	3·26	2·25	6·17	34·30
,,	Kerry.....	Darrynane Abbey.....	4·56	6·02	1·02	1·26	1·44	1·73	2·98	6·58	3·67	3·12	3·44	6·64	42·46
,,	,, ...	Kenmare (Derreen)	8·93	9·98	·71	·97	1·87	2·67	2·81	6·64	3·11	3·93	2·73	11·57	55·92
,,	,, ...	Dingle	2·80	7·61	1·08	1·29	·95	3·06	3·48	5·85	4·81	7·02	5·60	7·80	51·35
,,	Waterford	Waterford (Brook Lodge) .	4·11	3·96	·56	·62	1·59	1·66	1·63	4·40	1·21	2·32	2·34	4·33	28·73
,,	Tipperary	Tipperary (Henry Street)	2·98	3·83	·72	·80	2·46	1·95	1·08	3·64	2·52	4·27	2·79	3·80	30·84
,,	,, ...	Nenagh (Castle Lough) ...	3·03	3·80	·59	·57	1·55	2·14	2·13	4·18	3·25	2·80	2·20	5·10	31·34
,,	,, ...	Ballingarry (Hazelfort) ...	2·92	2·89	·68	·65	2·33	1·34	2·30	4·21	2·18	2·94	1·77	3·89	28·10
,,	Limerick	Newcastle West	2·66	4·51	·39	1·12	1·31	1·62	2·98	3·38	3·34	4·17	3·04	4·80	33·32
,,	Clare	Ennis.....	2·29	5·06	·44	1·16	1·30	1·40	3·04	3·76	3·50	3·77	1·91	5·33	32·96
,,	,, ...	Miltown Malbay	3·39	5·17	·75	2·12	1·38	1·11	3·21	4·63	4·36	4·81	2·87	5·28	39·08
XXI.	Wexford	Ballyhyland	4·42	3·29	·56	·78	2·17	1·87	2·15	4·54	·96	2·62	3·26	3·69	30·31
,,	,, ...	Gorey (Courtown).....	3·58	3·16	·44	·44	1·02	1·60	2·10	4·05	·70	2·50	1·55	3·36	24·50
,,	Kilkenny	Inistioge (Woodstock).....	2·76	2·02	·60	·56	1·42	1·42	1·42	3·65	1·12	2·36	1·86	2·70	21·89
,,	,, ...	Kilkenny (Lavistown)	3·45	2·91	·31	·76	2·24	1·86	1·81	4·03	1·09	2·40	1·37	2·53	24·76
,,	Wicklow	Bray (Fassaroe)	4·43	4·41	·27	·56	1·06	2·04	1·91	3·12	·81	1·25	2·67	3·72	26·25

IRELAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XXI.	Carlow	Browne's Hill	3·07	2·92	·58	·61	2·22	1·62	1·75	3·91	1·27	2·32	1·91	3·55	25·73
,,	Queen's County...	Abbey Leix (Blandsfort)...	3·74	3·02	·90	·60	2·36	1·84	2·64	4·49	2·34	3·29	2·05	4·16	31·43
,,	Kildare	Straffan House.....	2·75	2·76	·47	·50	1·75	2·24	1·65	3·79	1·08	1·94	1·34	2·83	23·10
,,	Dublin	Glasnevin(BotanicGardens)	2·58	2·75	·36	1·14	2·32	1·96	2·29	3·40	1·09	1·14	2·00	2·72	23·75
,,	Meath	Athboy	2·29	3·51	·56	·71	2·17	2·20	2·27	4·00	1·46	1·99	1·59	3·49	26·24
,,	,, ...	Moynalty (Westland)	2·82	3·52	·99	1·17	3·21	1·64	2·49	4·18	1·50	2·76	1·56	4·00	29·84
,,	Westmeath	Mullingar (Belvedere).....	2·25	3·34	·61	1·10	2·15	2·15	2·30	4·68	1·54	2·11	1·23	3·11	26·57
,,	,, ...	Athlone (Twyford)	2·42	2·75	·60	·86	2·99	2·67	3·22	4·18	2·08	2·65	1·32	4·19	29·93
,,	Louth	Ardee (Lissrenny).....	2·61	2·96	·99	1·16	1·55	1·78	2·93	3·20	1·17	1·92	1·56	3·30	25·13
,,	,, ...	Greenore	2·61	3·30	1·70	1·56	1·06	2·02	2·54	4·24	1·21	1·76	1·65	3·21	26·86
,,	Longford	Edgeworthstown	2·07	3·27	1·01	1·00	2·47	2·68	3·71	4·37	1·67	3·71	1·41	3·74	31·11
XXII.	Galway	Ballinasloe	2·27	3·32	·60	·81	2·40	2·29	3·42	3·78	1·60	3·17	1·97	4·23	29·86
,,	,, ...	Kylemore House	7·23	10·08	2·47	2·35	3·12	4·73	3·87	5·94	4·82	8·27	5·06	11·48	69·42
,,	,, ...	Tuam.....	2·65	4·78	·85	1·35	1·60	2·33	3·27	4·51	2·07	4·14	2·31	4·99	34·85
,,	Roscommon	Donamon (Castlecoote) ...	1·92	3·79	·78	·93	1·92	2·73	4·53	3·59	2·33	3·52	1·92	3·38	31·34
,,	Mayo	Ballinrobe (Cranmore) ...	3·18	5·99	·88	2·09	2·85	2·03	2·66	3·97	2·20	4·32	2·60	7·24	40·01
,,	,, ...	Crossmolina (Enniscoe) ...	3·36	7·47	1·68	2·14	1·35	2·12	3·24	5·39	3·84	3·79	3·36	8·39	46·13
,,	Sligo	Sligo (Mount Shannon) ...	3·28	3·48	1·11	1·11	1·30	2·98	3·92	4·79	4·28	4·17	2·47	4·23	37·12
,,	Leitrim	Ballinamore (Lawderdale).	2·60	4·29	1·70	1·72	2·56	2·65	3·51	5·41	2·42	3·37	2·53	3·88	36·64
XXIII.	Cavan	Lough Sheelin (Arley) ...	2·12	2·98	1·01	1·04	2·52	2·49	3·15	3·71	1·55	3·31	1·47	3·29	28·64
,,	Fermanagh	Brookboro'(Colebrooke Pk)	2·84	5·27	1·43	·97	1·63	2·83	4·66	5·11	2·74	3·71	2·98	4·40	38·57
,,	Armagh.....	Edward St. [Newry]	2·88	3·30	1·21	1·10	1·30	1·95	1·95	3·65	1·33	1·75	2·15	3·95	26·52
,,	,, ...	Armagh.....	1·59	2·80	1·00	·94	1·12	1·59	2·19	4·54	1·42	2·71	1·58	2·80	24·28
,,	Down.....	Newcastle (Fairleigh)	5·00	6·19	1·52	1·66	2·76	1·68	2·65	6·42	1·63	1·62	1·52	5·85	38·50
,,	,, ...	Donaghadee	2·49	3·33	·74	1·16	·99	1·65	2·83	4·18	1·44	1·71	·93	2·74	24·19
,,	Antrim	Belfast (Springfield).....	2·94	4·36	1·38	1·97	1·60	1·30	3·17	5·61	2·54	3·12	2·53	4·44	34·96
,,	,, ...	Ballymena.....	3·14	4·34	1·53	1·24	1·22	3·68	2·67	5·09	2·87	4·06	2·57	3·82	36·23
,,	,, ...	Bushmills (Dundarave) ...	2·02	3·19	1·75	1·47	1·38	1·57	4·04	4·55	4·53	5·19	2·58	3·55	35·82
,,	Londonderry.....	Newtown Limavady	2·06	2·88	2·21	1·27	1·08	1·50	2·88	4·13	3·50	3·67	2·30	4·22	31·70
,,	Tyrone	Stewartstown (Ardtrea) ...	2·74	4·11	1·18	1·47	1·48	5·42	2·78	5·44	2·11	2·78	1·69	3·41	34·61
,,	,, ...	Omagh (Edenfel)	2·86	3·00	1·71	1·59	1·26	1·87	3·64	6·21	2·77	4·37	2·37	4·85	36·50
,,	Donegal.....	Castlefinn (Finn Lodge) ...	2·48	3·17	1·29	·91	1·57	1·77	3·09	4·02	4·00	3·36	2·35	3·61	31·62
,,	,, ...	Malin Head	1·78	2·63	1·33	1·16	1·22	1·40	5·23	4·19	4·18	4·31	2·02	3·13	32·58

JANUARY.

The rainfall in this month was, at most stations, near the average ; but there were two noteworthy exceptions : at some stations in the S. and E. of Ireland it was above the average and the wettest month in the year, and on the contrary it was dry in some parts of Yorkshire, Wales, Dumfries, Edinburgh and Argyll. At some stations near Edinburgh it was the driest month in the year.

FEBRUARY.

At most stations this was a wet month, the exceptions being a few stations in Central England, the N. of Scotland, and the S.E. of Ireland. The fall exceeded two inches at every one of the 233 stations, and as regards the S.E. of England, its wetness will be remembered through its having produced the Sandgate disaster—the soil became waterlogged and slipped towards the sea, twisting the houses in its course.

MARCH.

The first of the three (or four) consecutive dry months by which the rainfall of 1893 will long be remembered. The rainfall was below the average everywhere ; the total fall at stations S. of a line joining Swansea to Middlesborough seldom exceeded half an inch, and at Oxford, Northampton, Huntingdon and Whitby it did not amount to a tenth of an inch.

APRIL.

Remarkably dry ; below the average at every station except Nairn and there the excess was only ·07 in. No English or Welsh station in the annexed table had an inch of rain except Hartlepool and Seathwaite. Out of 51 stations S. and E. of Gloucester—or say S. of a line joining Gloucester to Hull, there were 22 which had less than a tenth of an inch during the whole month.

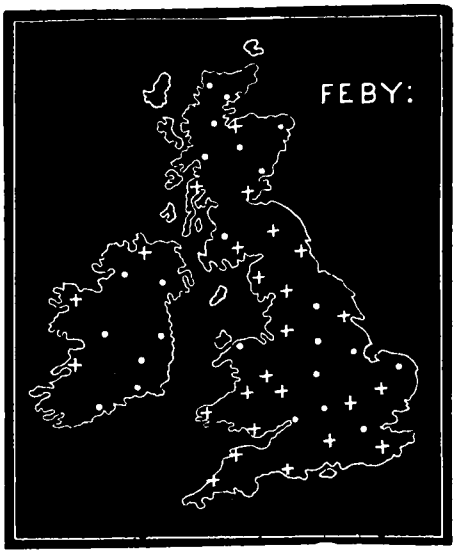
MAY.

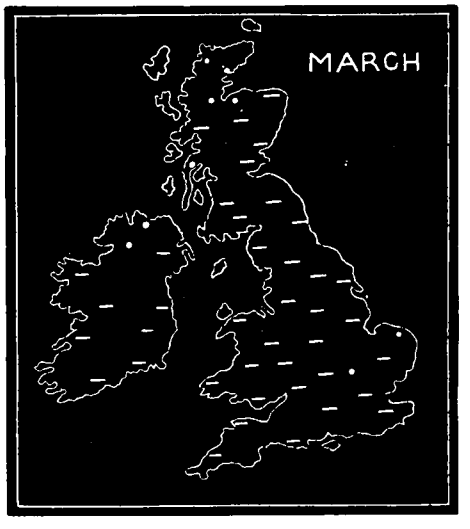
Another dry month ; less than an inch of R fell at many stations in South and Central England, but there were a few at which thunderstorm rains caused a slight excess.

MARCH TO MAY INCLUSIVE.

The dryness of these three months, as already indicated in the section devoted to "Droughts," was extraordinary. Out of 27 English and Welsh stations, distributed evenly over the country, 21 had less than half their average, 9 had less than one-third, and 2 (Camden Square and Bury St. Edmunds) had little more than a quarter—26 and 29 per cent respectively.

MAPS OF MONTHLY RAINFALL IN 1893.





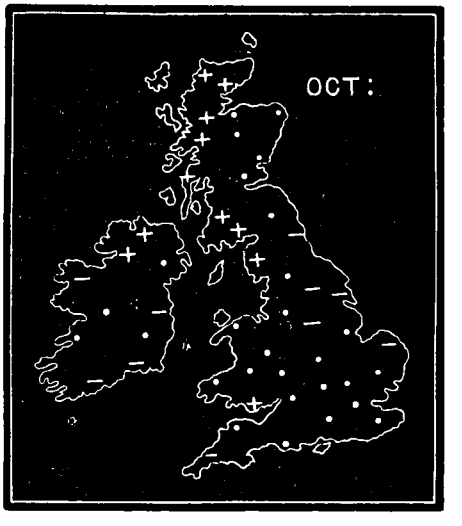
• Within an inch of average.

\+ More than 1 in. above average.

— ,, ,, ,, below ,,

Between pp. [156] *&* [157].

MAPS OF MONTHLY RAINFALL IN 1893.



• Within an inch of average.

\+ More than 1 in. above average.

— ,, ,, ,, below ,,

Between pp. [156] *&* [157].

JUNE.

The fourth consecutive month with less than an inch at stations in Middlesex, Surrey, Kent, Sussex, Herts, Oxford, Wilts, Dorset, Cornwall, Somerset and Gloucester. In England the total was below the average at almost every station, and less than in May. There was, however, a noticeable excess in the N.E. of Scotland.

MARCH TO JUNE INCLUSIVE.

As will be inferred from the note on June, it, in many parts of the country, did little towards breaking up the drought, and so we find that out of the 27 stations mentioned in our note on March to May, there are 18 with less than half of the average for the four months, and 2 (Camden Square and Weymouth) with less than one-third of the average.

JULY.

The relation of the rainfall in this month to the average was as usual controlled by TSS. Some of the "Heavy Falls" already reported sent the monthly totals at those stations far above the average and made July the wettest month of the year, but on the whole the fall may be regarded as about the average.

AUGUST.

Rather dry over the greater part of England. Wet in Scotland and in the E. and N. of Ireland.

SEPTEMBER.

Dry in the South Midland Counties of England, wet in Wales and in the N. of Scotland.

OCTOBER.

This was the wettest month of the year in the S.E. of England, but it was not much above the October average. It was wet also in the W. and N. of Scotland, but not markedly above the average.

NOVEMBER.

Rainfall about the average, but rather below in the S.W. of England and above, in the N. and E. of Scotland.

DECEMBER.

Wet generally, but the excess not very remarkable except in the N.W. of Scotland.

THE RELATION OF THE TOTAL FALL OF RAIN IN 1893 TO THE AVERAGE.

There are various aspects whence this subject may be viewed. Our readers are probably familiar with the diagram representing the fall of rain in each year since 1725, which has been given in several previous volumes of this series, and was completed up to date, and given in British Rainfall 1891. On that diagram the years 1892 and 1893 should be represented respectively by 99 and 81—that is to say, according to the data used in the calculation of the table, the results of which are represented in that diagram—the rainfall of 1893 was 19 per cent., or nearly one-fifth, less than the average.

If now we turn to the Comparison Tables on pages [161] to [164], and to the map representing those (and other) data, we find some very remarkable facts—the most startling being the very wide differences from the average in different parts of the country. In British Rainfall 1892, p. [138], we drew attention to the fact that several stations had less than two-thirds of their average, and quoted six at which the deficiency reached or exceeded 34 per cent., the greatest being —43 at Fenny Compton, Warwick. This year we have nine such stations, and the still more severe extreme of —47, or very little more than half the average at Woodstock, Inistiogue, Co. Kilkenny, and it is fully corroborated by deficiencies of 31 per cent. at Courtown ,Goree, Wexford, and of 39 per cent. at Fassaroe, Bray, Co. Wicklow.

Another very curious fact respecting the deficiency, is the similarity of the areas affected in 1892 and 1893—if our readers will kindly turn to British Rainfall 1892, and place the map, facing page [138], of that year by the side of the corresponding one here given, they will see the agreements and differences as clearly as we could point them out. We will, however, bring together the stations with less than two-thirds of the average in either of the two years, and we

shall then see that in several cases the stations have had two consecutive very dry years.

Div.	County.	Station.	Deficiency, per cent. 1892.	1893.	Mean for 2 years.
III.	*Oxford*	Oxford (Mag. Coll.)	—29	—37	—33
,,	*Northampton.*	Wellingboro' (Croyland Abbey)	—26	—36	—31
VI.	*Hereford*	Ross (The Graig)	—27	—35	—31
,,	,, ...	Kington (Lynhales)	—37	—22	—30
,,	*Worcester*.....	Northwick Park	—35	—31	—33
,,	*Warwick*	*Kineton* (*Fenny Compton*).....	—43	—38	—41
VII.	*Lincoln*.....	Stubton [Newark].....	—14	—36	—25
,,	,, ...	Horncastle (Bucknall)	—14	—35	—25
IX.	*York, N.R.*....	Guisborough (Hutton Hall).....	— 2	—34	—18
XI.	*Pembroke*.....	Castle Malgwyn [Llechryd] ...	—35	—25	—30
,,	*Brecon*	Brecknock (Cantreff)	—34	—17	—26
XXI.	*Kilkenny*	*Inistiogue* (*Woodstock*)	—34	—47	—41
,,	*Wicklow*	Bray (Fassaroe)	—11	—39	—25

We do not suggest that the figures for either of these two years are nearly as remarkable as those for 1887, but for a parallel to 1887 we had to go back to 1788—and most districts find the loss of one-third of their rainfall greatly deranges their water supply.

In 1887 the deficiency prevailed all over the country from the Orkneys to Jersey, from Galway to Norwich. In 1892 the arrangement was the normal one, viz., excess in Scotland when defect in England, and *vice versâ*. This has been the case also in 1893 to a marked degree, for while the English deficiency prevailed over nearly the whole of Ireland and the southern half of Scotland, the N.W. portion of the latter country had a very wet year—the excesses in West Ross, West Inverness, Caithness and Sutherland were considerable, that at Scourie reaching 40 per cent. above the mean, the fall being the greatest on record, certainly for 30 years.

Lastly we have to say a very few words respecting the following abstract table—the results are very much what might have been anticipated from the various summaries which have already been

ABSTRACT.

COUNTRIES.	No. of Records.	Average 1880-89.	1893.	Diff. from Average. 1880-89. Amount.	Per cent.
		in.	in.	in.	
England and Wales...	95	34·03	28·21	5·82 —	19
Scotland.....	47	42·18	41·67	·51 —	2
Ireland	38	38·92	32·50	6·42 —	17
Mean of all Stations...	180	37·19	32·63	4·56 —	14

given. We have the very wet early months preventing the subsequent drought being in full evidence in the annual totals, we have the great thunderstorm rains failing to make the yearly totals exceptional because of the previous drought, and we have the great drought itself failing to produce correspondingly exceptional totals because of excesses in other parts of the year—but in spite of all, the year comes out a dry one, with a deficiency for England of 19 per cent. (exactly the same as was yielded by the other way of computing it), for Scotland a deficiency of only 2 per cent. (*i.e.*, just about the average), for Ireland a deficiency of about the same as England, viz., 17 per cent., and for the whole of the British Isles of 14 per cent.

DIFFERENCE OF TOTAL RAINFALL IN 1893 FROM THE AVERAGE OF 1880-89.

The round dot indicates a rainfall within 10 per cent. of the average.
The + and − respectively show excess or defect of between 10 and 25 per cent.
The same signs enclosed by a ring indicate a departure from the average of more than 25 per cent.

Face p. [160].

COMPARISON OF THE RAINFALL OF THE YEAR 1893, WITH THE AVERAGE OF THE YEARS 1880-89.

ENGLAND & WALES.

DIV.	COUNTY.	STATION.	Average, 1880-9.	Depth in 1893.	Difference from average, 1880-9. Amount.	Per cent.
			in.	in.	in.	
I.	Middlesex	London (Camden Square)	25·45	19·80	5·65	— 22
II.	Surrey	Dorking (Abinger Hall)	30·60	23·70	6·90	— 23
,,	Kent	Tenterden (*Snowdon*)	28·11	27·56	·55	— 2
,,	,,	Maidstone (Hunton Court)	24·59	21·96	2·63	— 11
,,	,,	Sheldwich	28·70	27·48	1·22	— 4
,,	Sussex, West	Chichester (Chilgrove)	32·83	26·94	5·89	— 18
,,	,, East	Lewes (Iford)	31·75	32·44	·69	+ 2
,,	Hampshire	Isle of Wight (Osborne)	27·29	24·15	3·14	— 12
,,	,,	Christchurch (Mudeford)	27·01	23·80	3·21	— 12
,,	,,	Alresford (Ovington)	31·02	26·15	4·87	— 16
,,	Berkshire	Newbury (Welford Park) *n.g.*	30·27	23·92	6·35	— 21
III.	Hertfordshire	Hertford (Bayfordbury)	25·04	20·38	4·66	— 19
,,	Buckingham	Great Marlow (Cromwell Ho.)	26·71	21·04	5·67	— 21
,,	,,	Winslow (Addington Manor)	27·97	20·20	7·77	— 28
,,	Oxfordshire	Oxford (Magdalen Coll.)	26·19	16·57	9·62	— 37
,,	Northampton	Wellingboro'(Croyland Abbey)	28·67	18·34	10·33	— 36
,,	Bedfordshire	Bedford (Western Street)	24·01	20·66	3·35	— 14
,,	Cambridgeshire	Ely (Stretham)	22·39	21·58	·81	— 4
,,	,,	Wisbech (Bank House)	25·27	19·80	5·47	— 22
IV.	Essex	Maldon (Norton Hall)	22·01	19·08	2·93	— 13
,,	,,	Saffron Walden (Newport)	24·82	20·52	4·30	— 17
,,	Suffolk	Rendlesham Hall	24·83	19·78	5·05	— 20
,,	,,	Ixworth(Walsham-le-Willws.)	26·13	22·49	3·64	— 14
,,	Norfolk	Diss	25·81	21·54	4·27	— 17
,,	,,	Swaffham (Pickenham Hall)	27·33	22·67	4·66	— 17
,,	,,	Sprowston (Oak Lodge)	26·11	21·10	5·01	— 19
,,	,,	Hunstanton	23·93	18·39	5·54	— 23
V.	Wilts	Salisbury Plain (Chitterne Ho.)	28·26	24·04	4·22	— 15
,,	,,	Swindon (Pen Hill)	27·19	21·81	5·38	— 20
,,	Dorset	Weymouth (Langton Herring)	29·36	24·06	5·30	— 18
,,	Devon	Ashburton (Druid House)	51·28	42·51	8·77	— 17
,,	,,	Coryton (Lew Down)	46·29	45·68	·61	— 1
,,	,,	Bampton (Huntsham)	44·52	45·05	·53	+ 1
,,	,,	Barnstaple (Arlington Court)	52·85	51·15	1·70	— 3
,,	Cornwall	Marazion	38·68	30·65	8·03	— 21
,,	,,	St. Austell (Trevarna)	47·10	34·01	13·09	— 28
,,	Somerset	Glastonbury (Street)	31·16	22·18	8·98	— 29
VI.	Gloucestershire	Clifton (Pembroke Road)	36·08	28·42	7·66	— 21
,,	,,	Stroud (Upfield)	30·91	22·16	8·75	— 28
,,	Hereford	Ross (The Graig)	31·18	20·13	11·05	— 35
,,	,,	Kington (Lynhales)	35·32	27·38	7·94	— 22

ENGLAND & WALES.—*Continued.*

DIV.	COUNTY.	STATION.	Average, 1880-9.	Depth in 1893	Difference from average, 1880-9. Amount.	Per cent.
			in.	in.	in.	
VI.	Shropshire	Bishop's Castle (Castle Street).	34·08	26·44	7·64	— 22
,,	,,	Oswestry (Hengoed)	34·95	25·92	9·03	— 26
,,	,,	Adderley Rectory	28·80	21·72	7·08	— 25
,,	Stafford	Dennis [Stourbridge]	28·07	21·71	6·36	— 23
,,	,,	Burton (Shobnall)	25·86	18·94	6·92	— 27
,,	,,	Cheadle (The Heath House)	32·71	27·37	5·34	— 16
,,	Worcester	Northwick Park	30·09	20·83	9·26	— 31
,,	,,	Grt. Malvern (Church Street).	29·49	19·62	9·87	— 33
,,	Warwick	Kineton (Fenny Compton)	27·53	17·18	10·35	— 38
,,	,,	Coventry (Priory Row)	28·94	20·43	8·51	— 29
VII.	Leicester	Thornton Reservoir	27·69	21·46	6·23	— 22
,,	Rutland	Market Overton	28·54	19·24	9·30	— 33
,,	Lincoln	Stubton [Newark]	27·44	17·56	9·88	— 36
,,	,,	Horncastle (Bucknall)	25·96	16·83	9·13	— 35
,,	,,	Brigg	27·22	18·28	8·94	— 33
,,	Nottingham	Worksop (Hodsock Priory)	25·84	20·11	5·73	— 22
,,	Derby	Matlock Bath	36·62	25·20	11·42	— 31
,,	,,	Glossop (Spire Hollin)	41·60	37·38	4·22	— 10
VIII.	Cheshire	Chester Nurseries	29·08	22·31	6·77	— 23
,,	,,	Chelford (Astle Hall)	30·73	23·22	7·51	— 24
,,	Lancashire	Ormskirk (Rufford)	31·86	30·52	1·34	— 4
,,	,,	Over Darwen (St. James's Vic.)	46·56	46·24	·32	— 1
,,	,,	Kirkham (Weeton)	37·04	37·02	·02	— 0
,,	,,	Cartmel (Holker)	42·25	41·65	·60	— 1
IX.	York, W.Ridng.	Wakefield (Alverthorpe Hall).	26·72	24·62	2·10	— 8
,,	,, ,,	Otterburn-in-Craven	41·19	39·44	1·75	— 4
,,	,, ,,	Knaresborough (Farnham)	27·37	20·29	7·08	— 26
,,	,, E. Riding.	Pocklington (Warter)	30·46	23·89	6·57	— 22
,,	,, N.Riding.	Malton	26·90	23·29	3·61	— 13
,,	,, ,,	Leyburn	36·10	26·97	9·13	— 25
,,	,, ,,	Guisborough (Hutton Hall)	33·97	22·31	11·66	— 34
X.	Durham	Darlington (South End)	26·45	19·36	7·09	— 27
,,	,,	Wolsingham	35·27	27·90	7·37	— 21
,,	Northumberlnd	Haltwhistle (Unthank Hall)	35·97	29·47	6·50	— 18
,,	,,	Rothbury (Cragside)	34·03	24·01	10·02	— 29
,,	,,	Pawston [Coldstream]	30·00	25·82	4·18	— 14
,,	Cumberland	Borrodale (Seathwaite)	129·01	140·66	11·65	+ 9
,,	,,	Carlisle Cemetery	30·34	29·94	·40	— 1
,,	Westmoreland.	Appleby	32·75	30·36	2·39	— 7
XI.	Monmouth	Abergavenny (Larchfield)	38·65	30·80	7·85	— 20
,,	Glamorgan	Cardiff Castle	39·55	33·66	5·89	— 15
,,	,,	Neath	50·13	44·46	5·67	— 11
,,	Carmarthen	Carmarthen (Jo. Co. Asylum)	48·68	40·98	7·70	— 16
,,	Pembroke	Pembroke (Stackpole Court)	41·59	31·21	10·38	— 25
,,	,,	Castle Malgwyn [Llechryd]	45·29	33·80	11·49	— 25
,,	Brecknock	Brecknock (Cantreff)	51·27	42·57	8·70	— 17
,,	Radnor	Rhayader (Nantgwillt)	62·80	53·88	8·92	— 14
,,	Montgomery	Newtown (Dolfor)	39·77	30·96	8·81	— 22
,,	Denbigh	Colwyn (Nant-y-Glyn)	31·55	25·59	5·96	— 19

ENGLAND & WALES.—*Continued.*

DIV.	COUNTY.	STATION.	Average, 1880-9.	Depth in 1893.	Difference from average, 1880-9. Amount.	Per cent.
			in.	in.	in.	
XI.	Merioneth	Llanderfell (Palé)	47·47	40·32	7·15	— 15
,,	Carnarvon	Llanystumdwy (Talarvor)	36·53	30·85	5·68	— 16
,,	Anglesea	Llanerchymedd Lwdiarth Esgob	36·63	31·30	5·33	— 15
,,	Isle of Man	Douglas (Victoria Road)	40·60	36·50	4·10	— 10
,,	Scilly	St. Mary's	32·42	26·50	5·92	— 18
		SCOTLAND.				
XII.	Kirkcudbright	Dalbeattie (Colvend Manse)	36·08	33·82	2·26	— 6
,,	,,	Gatehouse (Cally)	49·15	41·44	7·71	— 16
,,	,,	Cargen [Dumfries]	39·74	37·55	2·19	— 6
,,	Dumfries	Durrisdeer (Drumlanrig Cas.)	42·00	33·00	9·00	— 21
,,	,,	Moffat (Ericstane)	52·63	51·30	1·33	— 3
,,	Roxburgh	New Castleton (The Flatt)	43·90	39·40	4·50	— 10
,,	,,	St. Boswells (Elliston)	28·73	21·29	7·44	— 26
XIII.	Peebles	Eddlestone (Portmore Res.)	37·19	27·58	9·61	— 26
,,	Berwick	Marchmont House	34·01	26·43	7·58	— 22
,,	Haddington	Haddington Asylum	26·24	23·28	2·96	— 11
,,	Edinburgh	Pentland Hills (Glencorse)	39·21	34·20	5·01	— 13
XIV.	Lanark	Biggar (Cambus Wallace)	29·98	25·80	4·18	— 14
,,	,,	Airdrie (Hillend Res.)	35·80	35·25	·55	— 2
,,	Ayr	Girvan (Pinmore)	48·25	47·31	·94	— 2
,,	,,	Ayr (Auchinlee)	32·52	32·35	·17	— 1
,,	,,	Ardrossan (Kirkhall)	34·92	32·85	2·07	— 6
,,	Renfrew	Gorbals W.W. (Waulk Glen)	43·32	42·95	·37	— 1
XV.	Dumbarton	Helensburgh (Lyleston)	45·14	44·25	·89	— 2
,,	,,	Arrochar	74·10	73·32	·78	— 1
,,	Bute	Rothesay (Barone Cottage)	46·04	43·20	2·84	— 6
,,	Argyll	Lochgilphead (Kilmory)	58·49	61·65	3·16	+ 5
,,	,,	Appin (Airds)	53·62	53·15	·47	— 1
,,	,,	Strontian (Laudale)	78·71	67·13	11·58	— 15
,,	,,	Islay (Eallabus)	47·65	44·70	2·95	— 6
,,	,,	Mull (Quinish)	57·28	53·67	3·61	— 6
XVI.	Perth	Bridge of Turk	66·09	53·10	12·99	— 20
,,	,,	Crieff (Ochtertyre)	40·30	30·93	9·37	— 23
,,	,,	Dalnaspidal	57·61	57·17	·44	— 1
,,	Forfar	Broughty Ferry (Douglas Ho.)	27·27	23·99	3·28	— 12
XVII.	Kincardine	Fettercairn	32·72	28·04	4·68	— 14
,,	Aberdeen	Braemar	35·57	30·45	5·12	— 14
,,	,,	Cromar (Logie Coldstn. Manse)	28·62	28·53	·09	— 0
,,	,,	Aberdeen (Rose Street)	27·76	25·01	2·75	— 10
,,	,,	Old Deer	30·57	30·23	·34	— 1
,,	Banff	Keith	29·98	33·82	3·84	+ 13
,,	Elgin	Grantown	28·65	33·24	4·59	+ 16
,,	Nairn	Nairn (School House)	22·61	26·84	4·23	+ 19
XVIII.	Ross, West	Strathconan [Beauly]	49·76	63·19	13·43	+ 27
,,	,,	Braemore House	57·94	71·45	13·51	+ 23
,,	Ross, East	Alness (Ardross Castle)	35·31	36·43	1·12	+ 3

SCOTLAND—*Continued.*

DIV.	COUNTY.	STATION.	Average, 1880-9.	Depth in 1893.	Difference from average, 1880-9.	
					Amount.	Per cent.
			in.	in.	in.	
XVIII.	Inverness, West	Glenquoich	102·64	124·22	21·58	+ 21
XIX.	Sutherland	Golspie	30·47	34·13	3·66	+ 12
,,	,,	Lairg	32·82	41·37	8·55	+ 26
,,	,,	Scourie	40·58	56·88	16·30	+ 40
,,	Caithness	Watten	27·01	31·10	4·09	+ 15
,,	Orkney	S. Ronaldshay (Roeberry)	31·61	35·80	4·19	+ 13
,,	,,	Shapinsay (Balfour Castle)	31·83	35·82	3·99	+ 13
		IRELAND.				
XX.	Kerry	Kenmare (Derreen)	67·99	55·92	12·07	— 18
,,	Waterford	Waterford (Brook Lodge)	38·31	28·73	9·58	— 25
,,	,,	Glenam [Clonmel]	42·15	33·43	8·72	— 21
,,	Tipperary	Tipperary (Henry Street)	37·78	30·84	6·94	— 18
,,	,,	Derry Castle [Killaloe]	46·33	41·29	5·04	— 11
,,	Limerick	Limerick (Kilcornan)	30·76	26·42	4·34	— 14
,,	Clare	Ennis	39·20	32·96	6·24	— 16
,,	,,	Miltown Malbay	44·12	39·08	5·04	— 11
XXI.	Wexford	Enniscorthy (Ballyhyland)	42·80	30·31	12·49	— 29
,,	,,	Gorey (Courtown House)	35·39	24·50	10·89	— 31
,,	Kilkenny	Inistiogue (Woodstock)	41·67	21·89	19·78	— 47
,,	Wicklow	Bray (Fassaroe)	43·28	26·25	17·03	— 39
,,	Carlow	Carlow (Browne's Hill)	33·59	25·73	7·86	— 23
,,	King's Co.	Parsonstown (Birr Castle)	32·22	28·29	3·93	— 12
,,	Dublin	Dublin (FitzWilliam Square)	27·47	20·49	6·98	— 25
,,	West Meath	Athlone (Twyford)	38·97	29·93	9·04	— 23
,,	,,	Mullingar (Belvedere)	34·69	26·57	8·12	— 23
,,	Louth	Dundalk (Farndreg)	29·30	24·15	5·15	— 18
,,	Longford	Edgeworthstown (Currygrane)	35·43	31·11	4·32	— 12
XXII.	Galway	Ahascragh (Clonbrock)	39·91	36·91	3·00	— 8
,,	,,	Tuam Gardenfield ..... 1 ft.	44·28	34·85	9·43	— 21
,,	Mayo	Crossmolina (Enniscoe)	51·41	46·13	5·28	— 10
,,	Sligo	Sligo (Mount Shannon)	40·52	37·12	3·40	— 8
XXIII.	Fermanagh	Brookboro' (Colebrook Park)	41·02	38·57	2·45	— 6
,,	Armagh	Armagh Observatory	32·16	24·28	7·88	— 25
,,	Down	Warrenpoint (Summer Hill)	37·88	29·49	8·39	— 22
,,	,,	Seaforde	37·89	27·35	10·54	— 28
,,	,,	Banbridge (Milltown)	31·44	24·11	7·33	— 23
,,	,,	Donaghadee	31·58	24·19	7·39	— 23
,,	Antrim	Belfast (Antrim Road)	34·57	31·29	3·28	— 9
,,	,,	Ballymena (Harryville)	39·41	36·23	3·18	— 8
,,	,,	Bushmills (Dundarave)	37·87	35·82	2·05	— 5
,,	Londonderry	Garvagh (Moneydig)	39·02	34·70	4·32	— 11
,,	,,	Londonderry (Creggan Res.)	40·78	41·01	·23	+ 1
,,	,,	Bellarena	39·18	38·69	·49	— 1
,,	Tyrone	Stewartstown (The Square)	34·90	32·31	2·59	— 7
,,	,,	Omagh (Edenfel)	36·63	36·50	·13	— 0
,,	Donegal	Raphoe (Convoy House)	46·94	47·53	·59	+ 1

EXTREMES OF RAINFALL IN 1893.

Largest Rainfall, at the Stye, Cumberland ..... 166·55 in.
Least Rainfall, at Bottesford, Leicester ..... 14·71 ,,

ENGLAND.

Greatest.			Least.		
Div.		in.	Div.		in.
X.	The Stye	166·55	VII.	Bottesford.....	14·71
,,	Seathwaite	140·66	,,	Caistor	14·75
,,	Sprinkling Tarn	129·10	III.	Easton [Stamford]	15·32
,,	Mickleden.....	126·45	II.	Erith (Crossness)	15·51
,,	Styehead Tarn	123·96	VII.	Grantham (Heydour Vic.) ...	15·75
,,	Ullscarf	117·40	VI.	Tewkesbury	15·81

MONMOUTH, WALES AND THE ISLANDS.

Greatest.			Least.		
Div.		in.	Div.		in.
XI.	Garthbibio (Bwlch Tomlyd)...	97·45	XI.	Rhyll (Sedgley House)	19·52
,,	Llanbedr-y-Cennin(Llyndulyn)	90·80	,,	Derbyhaven	20·64
,,	Oakley Quarries.....	89·46	,,	Wrexham (Is-y-coed)	21·08
,,	Neath (Glyncorrwg)	80·51	,,	St. Asaph (Nantllys)	21·50
,,	Treherbert (Tyn-y-waun).....	76·39	,,	Rosset (Trevalyn Hall)	21·88
,,	Treherbert	75·89	,,	Monmouth (Pentwyn)	22·38

SCOTLAND.

Greatest.			Least.		
Div.		in.	Div.		in.
XVIII.	Ben Nevis Observatory ...	165·77	XIII.	Dalkeith	16·84
,,	Glenquoich	124·22	,,	Leith	19·22
,,	Loch Shiel (Glenaladale) ...	118·53	,,	Eyemouth	19·79
,,	Glencarron Lodge	109·93	XVI.	Arbroath (Dishland Hill) ...	20·21
XV.	Loch Eil (Conaglen)	96·04	XII.	Kelso (Springwood Park) ...	20·73
XVI.	Glen Gyle	91·90	XIII.	Coldstream (The Hirsel) ...	20·94

IRELAND.

Greatest.			Least.		
Div.		in.	Div.		in.
XX.	Gap of Dunloe	80·50	XXI.	Killiney (Cloneevin)	18·05
XXII.	Clifden (Kylemore House)...	69·42	,,	Balbriggan (Laragh)	20·96
XXIII.	Killybegs	61·17	,,	Rathmines (Terenure).....	21·28
XXII.	Clifden (Kylemore Castle)...	59·61	,,	Inistioge (Woodstock)	21·89
XXIII.	Lough Esk (The Castle).....	59·47	,,	Rathmines (Leinster Road)..	21·89
XX.	Dunmanway (Coolkelure) ..	58·54	,,	Dublin Phœnix Park).....	22·44

NOTE.

Second gauges, and those at Lighthouses, are excluded from the above, and in selecting the minima, no record is used from any gauge of which the receiving surface is more than 3 ft. above the ground.

GENERAL TABLES

OF

TOTAL RAINFALL IN 1893,

AT NEARLY

3000 STATIONS

IN THE

BRITISH ISLES.

EXPLANATION OF THE ARRANGEMENT OF THE FOLLOWING GENERAL TABLES.

The divisions are the same as those adopted by the Registrars General of England and Scotland, and the counties follow the same order as in the reports of those officers; but an alphabetical list of the counties is given, whereby the page or pages on which all returns from each county will be found, can be at once ascertained.

The stations in each county are arranged nearly in the order of their latitude from South to North.

To facilitate finding the locality of any gauge, the first name is almost always that of a place given in *Bradshaw*, the *Post Office Guide*, or the *Clergy Directory;* the second name is generally added to fix accurately the site of Observation; but, in a very few instances, when in [ ] instead of ( ), it is that of the nearest town in an adjoining county; *e.g.*, "Lowestoft (Somerleyton Rectory)" means Somerleyton Rectory near Lowestoft, both in one county; but "Geldeston [Beccles]" means Geldeston, Norfolk, near Beccles, in another county—Suffolk.

The contents of the columns are sufficiently explained by the headings, except that in that headed "diameter," figures will be noticed of old-style type; these figures indicate the length of the sides of rectangular mouthed gauges. These measurements are all in inches.

The letter D denotes that a copy of the daily record has been received, that it is perfect throughout the year, and that the printed amount is the correct total of these daily entries. The letter M indicates that the gauge is read only on the first of each month.

A few entries of total rain will be found in italics—indicating uncertainty either as to possible overflow, or as to the measurement of snow.

An asterisk * denotes that the gauge was tested before erection, and a † that it has been visited and examined since. A note of interrogation (?) implies doubt, not necessarily error. ... indicates the absence of information.

In the column of altitudes several symbols are used, their meaning is as follows:—⅄, that a series of levels has been taken from the gauge to an Ordnance bench mark; T, that the height is estimated or ascertained approximately from the same source; L, that levels have been taken from the gauge to the sea, or to some datum other than Ordnance mean sea level; B, that the altitude has been taken by the barometer; and ?, that the height is uncertain.

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ENGLAND AND WALES.

DIVISION I.—MIDDLESEX.

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1893.	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	MIDDLESEX.						
	Hampton (Southwark W. W.)...	J.W.Restler, Esq.,C.E.	5	0 10	...	15·63?	139
	Sunbury (Hanworth Road)	W. B. Bryan, Esq., C.E.	8	1 0	50 ↟	19·12	157
	Teddington (Gomer House)	R. D. Blackmore, Esq..	5	0 10	26 ↟	19·93	138
D	Staines (Belle Vue)	J. Gundry, Esq.....	5	1 0	51 ↟	21·11	171
	,, (Knowle Green).....	Miss Pellatt	5	5 2	...	18·90	153
	Twickenham (Strawberry Hill)	T. Gale, Esq.	5	1 3	37 T	18·33	155
D	,, (Sewage Works)...	G. B. Laffan, Esq., C.E.	5	1 6	30	17·30	119
	,, (,, ,,) M	,, ,, ,, ...	...	...	...	17·44	...
D	Chelsea (Pumping Station)	A. R. Binnie, Esq., C.E.	8	1 0	19 ↟	18·83	148
D	,, (St. Luke's Gardens) ...	TWE. Higgens, Esq. CE	5	1 0	25 ↟	18·72	149
D	Isle of Dogs	A. R. Binnie, Esq., C.E.	8	1 0	15 ↟	19·38	127
D	Gunnersbury Station	E. Mann, Esq.	5	0 11	35	18·86	142
D	Acton (Newburgh Road)	Miss Baker	5	1 0	86 T	19·73	141
	Ealing (Public Buildings).....	C. Jones, Esq., C.E. ...	5	9 0	114	18·55	143
	,, (Gordon Road)	J. Box, Esq.	5	10 0	85 T	17·27	134
D	Westminster (Spring Gardens)(3)	A. R. Binnie, Esq., C.E.	8	6 0	35 ↟	17·79	114
	,, (,, ,,)(1)	,, ,, ,, ...	8	66 4	95 ↟	16·23	114
	,, (,, ,,)(2)	,, ,, ,, ...	12	65 11	95 ↟	16·97	114
D	Kensington (Edith Road).....	G. von U. Searle, Esq.	5	0 10	13 T	19·60	158
D	,, (Holland House) ...	Mr. C. Dixon	5	4 6	68 ↟	19·63	141
D	,, (Addison Gardens)...	G. H. M. Whish, Esq..	5	1 1	23 T	20·49	145
D	,, (Campden Hill, W.)	M.W.Hervey, Esq., C.E.	8	4 10	130 ↟	21·19	152
D	London (Savile Row, W.)	G. S. Johnson, Esq. ...	5	...	...	17·84	143
D	,, (Westbourne Grove) ...	A. P. Baker, Esq.	5	0 9	64 T	20·79	151
	,, (Guildhall), E.C.	late Col. Haywood, C.E.	8	2 6	49 T	18·79	139
	,, (,,)	,, ,, ,, ...	8	51 0	98 T	18·92	139
	,, (Mile End)	J. Metson, Esq.	...	...	...	20·13	...

DIVISION I.—MIDDLESEX.—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
	MIDDLESEX—(*con.*)							
	London (Old Street), E.C.	The Royal Meteor. Soc.	5	1	0	70 ↑	19·15	142
	Perivale (Sewage Farm)	C. Jones, Esq., C.E. ...	5	12	0	56	17·28	137
	London (Gloucester Place W.) ...	W. B. Heberden, Esq..	5	4	0	...	18·80	157
	,, (Regent's Pk. R.Bot.Soc.)	W. Sowerby, Esq.....	8	1	0	126 ↑	20·69	149
D	,, (Hamilton Terrace, W.)	Miss Cobb	5	0	11	...	21·96	172
	,, (Portsdown Road, W.)..	Rev. G. B. R. Bousfield	5	5	4	80	19·01	...
D	,, (Barrow Hill)	M.W.Hervey, Esq., C.E.	5	3	4	190 ↑	18·52	140
D	,, (Old Ford).....	A. R. Binnie, Esq., C.E.	8	1	0	35 ↑	19·14	141
D	,, (West Hampstead)	H. T. Wharton, Esq...	5	1	0	135	21·93	153
D	,, (Canonbury) N.....	J. Spiller, Esq.	5	1	3	117 ↑	18·84	142
D†	,, (Camden Square), N.W.	G.J.Symons, Esq. F.R.S	8	0	8	111 ↑	19·80	148
†	,, (,, ,,) .....M	,, ,, ,, ...	5	1	0	111 ↑	19·81	...
D	Hampstead (Roslyn House) N.W.	C. H. B. Woodd, Esq..	8	1	4	330 ↑	19 61	141
D	,, (Kidderpore Reserv.)	M.W.Hervey, Esq., C.E.	8	1	6	323 ↑	21·26	154
D	,, (Branch Hill Lodge)	B. Woodd Smith, Esq.	8	0	10	380 ↑	18·78	121
†	,, (Squire's Mount) ...	Rogers Field, Esq. C.E.	5	1	0	388 ↑	18·55	132
	,, (The Pryors)	,, ,, ,, ,,	5	1	0	327 ↑	18·98	144
	Lea Bridge	W. B. Bryan, Esq., C.E.	36	0	3	23 ↑	19·64	138
D	Stoke Newington Reservoirs ...	J. Francis, Esq., C.E...	5	1	2	102 ↑	18·46	140
D	Highgate (Northwood Road).....	Mrs. Sowerby Wallis...	5	1	0	265 ↑	20·32	162
D	,, (North Hill)	T. de C. Meade, Esq., CE	5	4	6	302	20·54	149
	†Child's Hill (Helenslea), N.W....	A. J. Woodhouse, Esq.	5	1	6	245 ↑	19·03	138
	*Upper Clapton (The Common) ..	J. Parnell, Esq.	5	1	1	98 ↑	18·92	146
	Harrow	T. Charles, Esq.....	5	1	0	215	21·04	161
	Hornsey (High Street)	T. de C. Meade, Esq., CE	6	3	2	107	19·49	132
	,, (Burghley Road)	,, ,, ,,	6	4	0	71	19·76	127
D	Tottenham	J. E. Worth, Esq., C.E.	8	1	0	47 ↑	18·56	134
D	Muswell Hill	Miss Abethell.....	5	0	10	310 ↑	19·97	145
D	,, (Irish Corner Sew. Farm)	T. de C. Meade, Esq., C.E.	8	5	0	207 ↑	19·87	149
	Finchley East (Elmhurst).....	B. C. Wainwright, Esq.	8	0	7	300 ↑	20·39	144
D†	,, (Etchingham Park) ...	J. W. Scott, Esq.	5	1	2	295 ↑	21·18	165
D†	,, (,, ,,) ...	,, ,, ,, ...	8	1	3	295 ↑	21·22	165
D	Pinner Hill.....	A. Helsham-Jones, Esq.	5	3	6	410 ↑	23·03	152
D	Harrow Weald (Hill House) ...	A. Crossman, Esq.....	5	0	8	...	23·12	165
	Stanmore Observatory	S. T. Klein, Esq	5	1	0	268	22·90	166
D	Friern Barnet (Sewage Works)..	Baldwin Latham Esq C E	5	1	0	156 ↑	18·60	159
D	Whetstone	,, ,, ,, ...	5	1	0	315 ↑	21·26	147
D	Enfield (Old Park)	A. L. Ford, Esq.	5	1	9	156 ↑	20·15	174
D	,, (Nag's Head Lane)	J. Francis, Esq., C.E..	5	0	9	106 ↑	17·49	143

DIVISION II.—SOUTH EASTERN COUNTIES.

	SURREY.							
D	Haslemere	J. W. Penfold, Esq. ...	8	4	0	481 ↑	28·15	156
D	,, (Hazelhurst)	T. P. Newman, Esq. ...	5	1	0	550 ↑	28·46	178
	,, (Grayswood Hill)	B. E. C. Chambers, Esq.	5	1	0	580 ↑	27·13	...
	Dunsfold	Mr. W. Underwood ...	5	1	6	66	18·63	...

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above SeaLevel feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
SURREY—(*con.*)							
Haslemere (Weycombe)	G.B.Buckton,Esq.FRS.	5	1	0	562 ⅄	25·11	...
Hascombe Rectory	Rev. Canon Musgrave..	8	1	0	450 T	21·75	...
,, (Hall Place)	E. S. Rowcliffe, Esq....	8	2	6	273 ⅄	20·62	...
D Cranleigh Common	Admiral Maclear	5	1	0	182 ⅄	25·02	177
,, (County School)	,, ,, ...	5	1	0	232 ⅄	21·82	157
D ,, (Winterfold)	Mr. R. Turvey	8	3	6	603 T	21·76	152
D Ewhurst (Heathside) ... *new g.*	J. Sparkes, Esq.	5	1	6	600 ⅄	24·98	137
D Godalming (Witley)	Mrs. Foster.....	5	1	0	350 T	24·61	143
D ,, (Charterhouse)	O. H. Latter, Esq.....	5	1	0	200 ?	23·53	167
Ewhurst (Coneyhurst)	Miss Ewart.....	8	1	6	561 T	25·74	174
D Wonersh (Shamley Green)	Mr. A. Nash..... ...	5	1	0	400	23·72	147
D Abinger Hall	Rt. Hon. Lord Farrer..	8	2	0	320 T	23·70	147
D†Holmwood	A. Sconce, Esq.	5	1	2	320 T	25·58	107
Dorking (Fir Tor)	F. Taylor, Esq.	5	1	0	260	24·74	...
,, (West Street)	Mrs. Marsh.....	10	26	0	224 T	20·50	133
D Brockham (North Lodge)	H. R. Kempe, Esq.; ...	8	0	9	...	23·33	111
D Farnham (The Bourne Vicarage)	Rev. T. W. Sidebotham	5	1	0	308 ⅄	22·77	164
D ,, (Great Down,Seale)...	Mrs. Kitchin	8	1	0	490 T	21·45	136
Guildford (Piccards Rough).....	C. M. Powell, Esq. ...	5	3	0	325 T	20·60	136
D ,, (GuildownTheBeeches)	Miss Hadden	5	0	11	220 T	22·30	172
D Reigate (Woodhatch Lodge) ...	T. B. Haywood, Esq...	5	1	0	270 T	23·10	153
D ,, (Ringley Mead)	R. L. Hesketh, Esq. ...	5	1	0	345 T	25·34	170
,, (Sewage Farm)	F. D. Clark, Esq., C.E.	8	1	0	196 ⅄	25·14	155
D†Red Hill (Oxford Road)	W. H. Tyndall, Esq....	8	1	0	300 ⅄	23·76	145
D Reigate (Dovers Lodge)	R. W. Clutton, Esq....	5	0	7	192	22·47	151
D ,, (Holmfels)	Miss Baker	5	1	0	264 T	23·77	156
D ,, (Castle Grounds)	F. D. Clark, Esq., C.E.	5	1	6	350 ⅄	23·90	156
D ,, (Doods).....	G. E. Pym, Esq.....	5	1	3	350 ⅄	25·15	163
D ,, (Nutwood)	H. E. Gurney, Esq. ...	5	0	9	440 T	23·19	136
D Nutfield Priory	Mrs. Fielden	8	1	2	468 ⅄	22·27	153
D ,, (Holmesdale)	C. T. Maw, Esq.	8	2	0	500 T	22·38	148
D Guildford (Wern)	Miss Mathew	5	4	0	170	20·16	132
D Dorking (The Denbies)	Mr. J. Beesley	5	0	9	610 T	24·50	138
,, (Polesden Lacey)	Mr. O. Goldsmith	5	1	0	540	23·00	...
D ,, (High Ashurst)	The Hon. H. D. Ryder	5	10	0	545	23·87	158
D Bookham Lodge.....	Hon.Rev.HWaldegrave	8	0	7	140	18·64	142
Leatherhead (Downside)	A. Tate, Esq.....	5	1	0	609 ⅄	18·28	...
,, (Newlands)	E. B. Falwasser, Esq...	...	0	8	...	22·56	152
D Caterham Asylum	F. C. Bayard, Esq. ...	5	1	0	610	26·63	140
D ,, Valley (Birchwood Ho.)	Messrs. C. & F. Rutley	5	1	0	471 ⅄	20·94	147
D ,, ,,(Congregatl. School)	F. C. Bayard, Esq.....	5	1	0	500	24·15	138
D Camberley (Heathcote).....	Gen. Stotherd, C.B. ...	5	1	0	292 ⅄	20·50	156
D Coulsdon Grange	F. C. Bayard, Esq. ...	5	1	4	525	21·97	132
D Kenley (Ingleside).....	H. Smith, Esq.	8	1	0	375 T	23·32	172
Warlingham Vicarage	F. C. Bayard, Esq.....	5	1	0	614	25·26	...
D Ashtead (Caen Leys).....	J. D. Robertson, Esq...	8	3	0	185 T	20·26	145
D ,, (D'Abernon Chase) ...	Sir W. Vincent, Bart..	5	1	0	280 T	20·29	166
Leatherhead (Oxshott)	W. H. Dines, Esq. ...	5	1	0	206 ⅄	18·89	146

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
	SURREY—(*con.*)							
	Banstead (The Larches)	Rev. C. J. Taylor	8	1	0	488 T	21·53	126
	Epsom College	F. C. Bayard, Esq.	8	1	0	290	21·24	...
D	Purley (Tudor Cot.)	,, ,, ,,	5	1	0	216 ⊼	23·53	156
D	,, (Reedham)	,, ,, ,,	5	1	0	375	20·31	145
D	Chertsey (Ottershaw)	R. H. Otter, Esq.	5	1	0	200 T	20·00	174
D	Windlesham (Erlwood)	E. S. Currey, Esq.	5	1	0	216 ⊼	21·05	162
	Weybridge Heath (Netherfield)	C. H. Parkes, Esq.	5	1	0	160	18·61	145
D	,, (Field Place)	H. Yool, Esq.	5	1	0	119 ⊼	19·09	166
D	Esher (Sewage Works)	Baldwin Latham Esq CE	5	1	0	42 ⊼	17·01	159
D	Addington (Hares Bank)	F. C. Bayard, Esq.	8	1	0	331 ⊼	21·27	146
D	,, (Park Farm)	,, ,, ,,	5	1	0	268 ⊼	22·11	148
D	,, Hills	,, ,, ,,	8	0	9	473 ⊼	20·66	152
D	Wallington	,, ,, ,,	5	4	0	157 ⊼	20·14	155
	†Sutton (Mulgrave Road)	W. Goode, Esq.	5	5	6	230 ⊼	21·04	145
D	Beddington (Riverside)	The Royal Meteor. Soc.	5	1	0	120	19·57	152
D	Croydon (Duppas House)	Baldwin Latham Esq CE	5	1	0	...	19·78	187
D	,, (Waddon House)	P. Crowley, Esq.	5	1	0	156 ⊼	18·30	153
D	,, (Waddon New Road)	G. Corden, Esq.	5	1	0	155	18·07	162
D	,, (The Whitgift)	F. C. Bayard, Esq.	5	1	0	191 ⊼	20·25	151
D	,, (Brimstone Sew. Works)	,, ,, ,,	5	1	0	130 ⊼	17·90	134
D*†	,, (Addiscombe)	E. Mawley, Esq.	8	0	9	202 ⊼	19·50	153
D	,, (Park Hill Rise)	F. C. Bayard, Esq.	5	1	0	250	19·28	142
D	New Malden (Sewage Works)	,, ,, ,,	5	1	0	45	16·22	136
D	Thornton Heath (Thornton Rd.)	A. Wright, Esq.	8	0	8	120	17·73	114
	Chertsey (Flutters Hill)	F. A. Baker, Esq.	...	...		...	18·94	...
	,, (Burley Orchard)	W. A. Herring, Esq.	5	1	0	...	17·72	...
	Virginia Water (Portnall Park)	Mrs. Cecil De Salis	5	0	3	200 ⊼	22·96	139
D	Surbiton (Seething Wells)	R. Hack, Esq., C.E.	10	0	6	25	18·77	117
D	East Molesey (Palace Road)	Lady Jenkyns	8	6	0	37	18·82	152
D	Kingston Sewage Works	F. C. Bayard, Esq.	5	1	0	25	20·86	144
D	Wimbledon (Mount Ararat)	T. Devas, Esq.	12	3	0	157 T	19·32	134
D	,, (Raynes Park)	F. C. Bayard, Esq.	5	1	0	47	22·18	191
D	,, (Sewage Works)	,, ,, ,,	5	1	0	58 ⊼	19·22	151
D	South Norwood (Selhurst Road)	,, ,, ,,	5	1	2	210	18·68	151
	West Norwood (Thornlaw Road)	W. Marriott, Esq.	8	1	0	221	20·25	152
	Streatham Hill (Wavertree Rd.)	F. Jordan, Esq.	5	0	10	178 T	19·24	157
D	Dulwich Wood Park	T. P. Caldicott, Esq.	5	1	2	...	19·82	131
D	Wandsworth Com. (Patten Rd.)	F. C. Bayard, Esq.	5	1	0	100	18·83	174
	Egham (Cooper's Hill)	The Meteor. Council	8	1	1	280	21·81	174
D	Richmond (Ormond Lodge)	J. T. Billett, Esq.	5	0	9	51	19·63	161
D	Kew Observatory	The Kew Committee	11	1	9	19 ⊼	19·50	162
	Brixton (Acre Lane)	The Meteor. Council	8	1	0	77 T	19·22	156
	Nunhead (Southwark W. W.)	J. W. Restler, Esq., C.E.	5	4	0	176	17·13	125
D	Battersea Creek	A. R. Binnie, Esq., C.E.	8	27	2	41 ⊼	16·48	132
	,, (Southwark W. W.)	J. W. Restler, Esq., C.E.	5	3	6	...	16·42	135
D	Vauxhall Cross (Wandsworth Rd.)	A. R. Binnie, Esq., C.E.	8	30	9	48 ⊼	17·69	131

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
KENT.						
Dungeness	The Meteor. Council	8	...	...	20·71	159
D Hawkhurst(SandhurstRec)*Gard.*	Rev. G. Ridout	5	1 3	208 ⅄	29·40	145
Appledore (Snargate)	J. Ellis Mace, Esq.	5	1 0	9	20·76	...
Dymchurch Rectory	Rev. C. E. Plater	8	1 6	0	24·61	...
Rolvenden (Hole Park)	A. Curteis Neve, Esq.	5	1 0	220	28·14	...
Tenterden (Summerhill)	Rev. A. Wilkin	12	1 0	149 ⅄	24·62	155
Benenden Vicarage	Rev. Canon Joy	8	1 6	330	25·11	...
,, (East End)	J. Ellis Mace, Esq.	8	1 2	193 ⅄	26·17	...
D Tenterden	,, ,, ,,	8	1 5	190 ⅄	27·60	176
,, ... *Snowdon*	,, ,, ,,	8	1 5	190 ⅄	27·56	...
,, (Little Westwell)	Mr. W. Hilder	5	1 0	140 T	27·12	...
,, (Ashbourne Mills)	A. Pinyon, Esq.	5	1 0	45	26·35	...
Woodchurch	Rev. A. Welch	5	5 0	107	21·64	129
D† Hythe	late H.B.Mackeson,Esq	8	0 6	12 T	27·82	167
† ,, (Hillhurst Farm)	G. F. Deedes, Esq.	5	2 0	280 T	28·88	175
Cranbrook (Swattenden)	Miss Appach	8	1 2	350 T	25·87	140
† ,, (Hartley)	G. Pile, Esq.	5	4 0	405 T	27·10	159
Folkestone (Capel Lodge)	E. Norton, Esq., M.D.	5	1 0	470 T	31·27	168
Hythe (Frogholt)	G. Lipscomb, Esq.	5	1 0	180	28·42	...
† ,, (Paddlesworth)	Mr. R. Dixon	8	1 0	608 ⅄	36·95	...
Dover (Castle Knowle W.W.)	W. Thomas, Esq., C.E.	8	2 10	204 ⅄	32·51	178
Kearsney Abbey	The Meteor. Council	...	...	...	33·52	171
D† Acrise (School House)	G. C. Woollett, Esq.	8	1 0	504 ⅄	35·15	156
D Tunbridge Wells (Camden Park)	J. Weston, Esq.	5	0 9	424 ⅄	26·63	177
,, ,, (Bredbury)	F. G. Smart, Esq.	5	1 0	415	26·05	158
D ,, ,, (Ferndale)	A. Keene, Esq.	8	1 0	370 T	26·87	160
D Cranbrook (Camden Lodge)	Mr. A. Habbitts	5	1 0	276 T	26·61	154
D Ashford (Bethersden)	W. H. Mold, Esq.	5	4 0	111 ⅄	25·78	164
D ,, (Beavor Green)	T. Nickalls, Esq.	5	1 0	155 T	28·61	181
D Tunbridge Wells (Etherton Hill)	E. W. Winton, Esq.	5	1 5	276 ⅄	22·74	141
D ,, ,, (Pembury)	W.Brentnall, Esq.C.E.	8	1 8	181 ⅄	22·90	142
Tunbridge (Penshurst Place)	The Hon. H. Sidney	5	0 11	115 T	22·02	...
D ,, (,, Park)	Mr. J. M. Sturgess	5	0 4	265 T	23·51	148
D ,, (St. Mary's)	W. C. Punnett, Esq.	5	1 6	96 ⅄	23·61	144
,, (,, ,,) *Snowdon*	,, ,, ,,	5	1 0	96 ⅄	23·50	143
,, (,, ,,) .....M	,, ,, ,,	8	4 0	98 ⅄	23·22	...
D Ashford (Pluckley)	Mr. F. Kingsnorth	5	5 0	120 T	23·39	161
D ,, (Westwell)	Rev. H. H. D'Ombrain	5	1 0	272	26·26	137
Edenbridge (Falconhurst)	J. G. Talbot, Esq., M.P.	5	1 0	300	25·43	127
Wye (Bilting)	Mr. J. Carter	5	1 3	...	31·01	159
D Lower Walmer (Meadow Side)	Mr. H. R. L. Botting	5	1 4	20	24·52	141
D† Maidstone (Hunton Court)	Mr. E. Hall	8	0 6	80 T	21·96	148
D ,, (Linton Park)	Mr. C. Pratt	5	1 0	...	23·05	139
D ,, (Lower Tovil)	Lawrence Green, Esq.	5	1 0	30 L	22·78	154
D ,, (The Mote)	Mr. C. R. Fielder	10	3 5	175	19·71	152
D ,, (Mount House)	C. A. Case, Esq.	5	1 0	160 T	22·97	151
D ,, (Hospital)	M. A. Adams, Esq.	5	0 8	200	23·29	114
D West Malling (Hardres)	A.F. Bowker,Esq.,C.E.	5	1 2	165 ⅄	25·26	174

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1893	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
KENT—(*con.*)						
D Debtling	R. Cooke, Esq.	5	1 2	330 T	23·58	154
Sheldwich	Rev. B. S. Malden	5	1 0	250 T	27·48	155
D†Selling (Harefield)	E. Neame, Esq.	5	2 6	217 T	26·16	152
D Westerham (The Fishponds)	F. C. Bayard, Esq.	5	1 0	380	24·62	113
D Canterbury (Burgate Street)	B. Rigden, Esq	5	9 6	58 ⅄	26·10	129
D ,, (Sewage Works)	F. Baker, Esq., C.E.	5	0 7	18 ⅄	24·49	171
†Seven Oaks (River Hill)	J. T. Rogers, Esq.	8	4 6	535 ⅄	20·15	...
D ,, (Purleigh)	W. W. Wagstaffe, Esq.	7	1 5	380 T	26·27	148
D† ,, (Riverhead Vic.)	Rev. J. M. B. Murdoch	5	0 6	300 T	21·03	131
D ,, (Kemsing)	T. Stonham, Esq.	5	6 0	300	20·22	177
D Sittingbourne (Sharsted Court)	A. J. Rayfield, Esq.	5	1 0	276 T	26·32	143
D Lynsted (The Batteries)	R. M. Mercer, Esq.	5	1 0	140	23·83	151
Ospringe (Lorenden)	W. C. Stunt, Esq.	5	1 4	180 ?	23·85	128
Knockholt (Kent Waterworks)	F. C. Bayard Esq.	5	1 0	785	21·40	...
D Keston (Bradfield)	A. Hill, Esq.	5	1 0	350 T	19·69	149
D ,, Tower	G. Buchanan, Esq., C.E.	8	0 11	351 T	21·44	148
D Rochester (Halling Cottage)	A. F. Bowker, Esq., CE	8	1 0	66 ⅄	23·52	123
Ash (Pettings House) .....*old. g.*	C. J. G. Hulkes, Esq.	5	5 0	530 T	16·89	...
D ,, (,, ,,).....*new g.*	,, ,, ,,	5	1 0	540 T	20·43	161
Herne Bay (Eddington)	Miss Hawksworth	5	1 0	4?	20·53	...
,, ,, (Water Works)	G. F. Bagley, Esq.	5	...	90	20·25	...
D Birchington (Thor)	Mr. W. H. Euden	5	1 0	40 T	21·40	143
D Reculver (Brook)	A. Collard, Esq.	5	6 3	40	19·43	141
D Hayes (Layham's Farm)	W. Ashcroft, Esq.	5	1 0	500	23·19	143
D ,, Common (The Warren)	Miss Akers	5	1 4	296	20·02	147
D Orpington (Kent Waterworks)	F. C. Bayard, Esq.	5	1 0	220	20·90	140
D Farningham Hill	,, ,, ,,	5	3 0	300	20·07	162
Chatham	The Meteor. Council	8	1 3	137	21·67	147
D Rochester (Knights Place)	J. Pye, Esq.	5	2 3	320	21·54	162
D St. Peter's	Rev. H. C. V. Snowden	5	4 0	144	22·31	131
North Foreland	The Meteor. Council	8	...	...	22·13	143
D Margate (Apsley House)	J. Stokes, Esq.	5	1 5	84 L	20·56	149
,, (,, ,,)*Snowdon*	,, ,,	5	1 0	84 L	20·61	149
D Sheppey (Leysdown)	Rev. A. Farbrother	5	1 2	47	18·37	134
D Frindsbury (Manor Farm)	F. Baker, Esq.	5	1 0	100	19·76	126
D Bickley (Highfield)	J. Batten, Esq.	5	1 2	295	20·06	147
Chislehurst (Abbey Lodge)	Col. Silver	5	1 5	...	18·84	124
D Wilmington (Kent Waterworks)	F. C. Bayard, Esq.	5	1 0	25	17·30	133
D†Beckenham (Foxgrove)	Percy Bicknell, Esq.	5	0 6	142 ⅄	17·67	138
D† ,, (,,)	,, ,, ,,	5	4 0	145 ⅄	16·59	127
D Sidcup (Hatherley Road)	Dr. L. Burrell	5	1 2	350	20·31	139
D Rochester (Abbot's Court, Hoo)	Warwick Stunt, Esq.	5	1 0	10	17·28	132
Sheerness (Water Works)	C. A. Copland, Esq., CE	8	1 0	9 ⅄	19·24	128
D Bromley (Ivy Dene)	J. B. Snell, Esq.	5	1 0	245 T	20·49	175
D Forest Hill (Newfield House)	F. C. Bayard, Esq.	5	1 0	220	20·90	147
D ,, (The Nurseries)	Messrs. J. Carter & Co.	5	0 5	76	21·01	139
,, (Barr Beacon)	J. W. Restler, Esq., C.E.	5	1 0	344 ⅄	21·10	151
D Catford Hill (Avalon)	F. M. Lark, Esq.	5	0 9	...	19·90	131

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground.	Rain Gauge. Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell
			ft. in.	feet.	inches.	
KENT—(*con.*)						
D Honor Oak	C. J. Holthouse, Esq.	5	3 0	...	18·45	129
D Gravesend (Park Place)	Mrs. Walker	5	1 0	24 ?	19·88	106
Higham (Oakleigh)	C. Lake, Esq.	...	...	...	15·02	...
D Rochester (Cooling Castle)	W. Wood, Esq.	5	4 10	10	18·30	129
D ,, (Hoo St. Mary)	H. Pye, Junr., Esq.	5	5 6	146 T	17·50	139
Eltham (Cliefden)	Miss Yeatman	5	0 10	160 T	18·34	...
D ,, (High Street)	F. C. Bayard, Esq.	5	1 0	245	18·13	133
D Blackheath (Westcombe Park Rd.)	Rev. W. H. K. Soames	8	1 4	120 T	19·16	142
,, Park (Elmsdale)	C. Lethbridge, Esq.	5	0 11	90	20·66	163
Greenwich (Royal Observatory)	W. H. Christie, Esq. F.R.S	8	0 5	155 T	20·12	154
D Deptford (Kent Waterworks)	F. C. Bayard, Esq.	5	1 0	20	19·78	137
D ,, (Pumping Station)	A. R. Binnie, Esq., C.E.	10	1 6	15	23·55	128
D Woolwich (Powis Street)	Mr. J. G. Waller	5	30 0	65	18·03	151
D Erith (Crossness) ..... No. 1	A. R. Binnie, Esq, C.E.	14	0 6	16 ⅄	15·69	155
,, (,,) ..... No. 3	,, ,, ,,	14	1 0	24 ⅄	15·51	155
WEST SUSSEX.						
Bognor (Lidsey Lodge)	H. Neale, Esq.	8	1 2	...	22·59	128
Littlehampton (Surrey House)	G. Neame, Esq.	5	1 8	20 T	26·41	...
D Arundel (Yapton)	W. A. Hounsom, Esq.	5	1 0	24 ⅄	23·69	136
,, (,, Drove Farm)	,, ,, ,,	5	1 0	14 T	21·26	121
Angmering	Rev. J. B. Orme	5	1 3	...	22·98	...
Chichester (Westgate Meadow)	Dr. Tyacke	8	0 6	40	24·54	123
,, (North Pallant)	Mr. G. Broomfield	5	1 6	...	26·43	124
D Arundel (Clapham Rectory)	Rev. A. H. S. Barwell	5	1 0	150 T	25·09	163
,, (Patching)	J. Drewitt, Esq.	5	1 0	180	24·19	145
,, (,,)	Mrs. Joad	5	0 10	130 T	24·41	160
D ,, (The Parade)	R. Holmes, Esq.	8	3 1	75	26·21	130
Steyning (Annington)	Mr. H. J. Hide	5	1 0	90 T	27·26	139
D† ,,	Col. Ingram	5	1 0	80 T	27·84	106
Chichester (Eartham House)	Sir P. Milbanke, Bt.	3	4 6	240 T	21·69	...
,, (Selhurst Park)	C. O. Newman, Esq.	5	0 10	300 T	26·07	127
D ,, (Forest Side Vic.)	Mrs. J. C. Parson	5	1 0	341	26·56	136
D ,, (Watergate)	R. Christy, Esq.	5	3 6	220 T	27·82	157
,, (West Dean)	Mr. W. H. Smith	...	1 6	190	27·09	103
† ,, (Chilgrove)	J. W. Woods, Esq.	5	0 6	284 T	26·94	...
D Compton [Petersfield]	Rev. H. M. Langdale	5	1 0	255 ⅄	29·28	167
†Petworth Rectory	Rev. C. Holland	5	4 0	180 ⅄	28·56	129
Cowfold (The Laurels)	Mr. S. Ford	6	1 6	273	24·07	...
D Midhurst (St. Ann's)	Genl. Paxton	8	1 8	120	27·10	144
D ,, (Cowderey Park)	Lord Egmont	5	1 6	150	27·64	164
D ,, (Borden Wood)	T. J. Hare, Esq.	5	1 2	280 T	29·54	161
,, (Lynch Farm)	G. Eames, Esq.	5	0 6	160 T	30·22	...
,, (Hollycombe)	J. C. Hawkshaw, Esq.	6	6 6	...	29·45	...
D Horsham (Bourne Hill)	F. W. Pigott, Esq.	5	1 0	250 T	22·58	139
,, (Cleveland Terr.)	J. H. Stephens, Esq.	5	7 0	...	21·94	...
,, (Manor House)	H. Padwick, Esq.	8	0 10	140 T	25·06	156
D ,, (Wimblehurst)	Miss Allcard	5	1 0	220 T	22·68	171

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground.	Height above Sea Level	Depth of Rain. 1893	Days on which ·10 or more fell.
			ft. in.	feet.	inches.	
EAST SUSSEX.						
Beachy Head ..... M	Miss Brodie Hall.....	5	1 0	515 T	22·02	...
D Eastbourne (East Dean)	E. W. Adamson, Esq..	5	1 0	180	24·03	145
D ,, (Wilmington Square)	R. Sheward, Esq.	8	0 6	39	29·31	153
D† ,, (Osborne House) ...	Miss Brodie Hall	5	1 0	12 T	28·76	168
† ,, (Cemetery)	,, ,, ,, ...	5	4 0	160 ⅄	28·64	...
†Brighton (Kemp Town)	Mr. Wyatt	5	1 0	82 T	25·31	125
D† ,, (Old Steine)	A. Newsholme, Esq., MD	5	1 0	32 T	24·13	158
,, (Goldstone Villas, Hove)	W. J. Treutler, Esq., MD	5	1 0	60	26·48	143
D ,, (W. W. Goldstone Botm).	J. Johnston, Esq., C.E.	5	0 5	140 ⅄	26·00	120
D ,, (W. W., Lewes Road)	,, ,, ,,	8	3 6	88	27·65	142
St. Leonards (London Road) ...	The Meteor. Council ...	5	1 0	166 T	27·19	149
D ,, ,, (The Grove).....	W. B. Young, Esq. ...	5	1 1	110 T	27·63	158
D Hailsham.....	Rev. F. Clyde Harvey..	5	1 0	105	27·97	126
D†Falmer.....	R. R. Verrall, Esq. ...	5	3 0	312 ⅄	31·43	123
Lewes (Iford).....	A Hillman, Esq.	5	1 0	33 T	32·44	142
D ,, (Bedford Lodge).....	Mrs. Kemp.....	5	1 0	85 T	24·71	150
D ,, (Saxonbury)	A. Hillman, Esq.	5	1 0	75 T	30·27	140
D ,, (Southmalling)	Miss M. H. Rickman...	5	1 0	40 ⅄	22·05	144
D Hastings (Newgate Res.)	P. H. Palmer, Esq., CE	8	0 10	240	25·57	153
† ,, (High Beech Hollington)	Col. Lewis	5	1 0	320 T	25·12	155
Clayton Rectory.....	Rev. T. H. R. Shand...	5	1 1	201	28·33	...
D Hurstpierpoint (Hampton Lodge)	I. F. H. C. Gregg, Esq.	5	1 0	174 T	24·14	146
D Winchelsea (The Friars)	Miss Stileman	5	1 2	115 T	25·51	134
D Battle (Whatlington)	Miss Gripper	5	1 3	70	29·70	120
D Uckfield House	Miss L. Day	8	0 10	200 B	25·67	162
D Cross in Hand (Montpellier).....	A. Brown, Esq.....	5	1 0	475	28·49	116
D Wivelsfield (Abbots Leigh)	Mr. R. Inglis..... ...	5	1 0	190 T	24·60	150
D Haywards Heath	C.E. Saunders, Esq. MD	5	1 1	281	23·89	106
Buxted (Strawberry Hall)	C. Rintoul, Esq.....	5	1 0	220	25·69	...
D†Maresfield (Forest Lodge).....	Capt. W. Noble	8	1 2	247 ⅄	25·96	174
Cuckfield (Workhouse)	The Meteor. Council ...	...	...	...	22·99	141
D†Mayfield Vicarage.....	Rev. H. T. M. Kirby...	8	0 8	425 T	28·86	153
D Nutley Vicarage	Rev. H. J. Peckham ...	5	1 0	386	25·72	165
D†Crowborough (The Observatory).	C. L. Prince, Esq.....	8	0 8	770 ⅄	28·29	148
D Balcombe Place	Mr. Warren	8	1 3	289 T	26·46	158
D ,, (Highley Manor)	Mrs. Nichols	8	1 6	422 ⅄	25·62	121
Ticehurst	Mr. Jordan	5	4 9	423 ⅄	26·72	129
D Wadhurst (Lower Cousley Wood)	F. Wilkin, Esq.....	5	1 0	416 ⅄	26·39	154
Frant (Eridge Castle)	Mr. A. Wilson	5	1 0	400	27·86	144
D Withyham (Leyswood).....	Mr. T. C. Moorhouse ...	8	1 4	420	26·01	134
D Worth (South Hill)	P. E. Ravenshaw, Esq.	5	1 6	558 T	27·13	168
,, Rectory.....(*East gauge*)	Rev. G. W. Banks ...	5	1 10	300 ⅄	26·93	163
D East Grinstead Station	Mr. G. Mitchell	8	2 2	410	24·95	133
,, ,, (Halsford Park).	W. V. K. Stenning, Esq.	5	1 3	365 ⅄	26·67	141
HAMPSHIRE.						
ISLE OF WIGHT.						
Niton (St. Catherine's House) ...	H. J. Dore, Esq.	5	1 0	275	25·43	140
D Ventnor	J. S. Ineson, Esq.	10	2 6	70	27·50	146

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
HAMPSHIRE—(*con.*)							
D Sandown (Lake Hill)	W. E. Green, Esq.	5	1	0	105	29·96	123
Brading Vicarage	Rev. E. Summers	5	1	6	40	27·55	...
D ,, (Oaklands)	J. A. Sims, Esq.	...	...		...	29·57	131
D Newport (Lugley House)	Rev. E. W. Watts	5	1	0	...	28·53	146
Yarmouth (National School)	Mr. F. C. Spray	5	1	0	8	24·12	139
D Ryde (Thornbrough)	Col. Clarke	5	1	0	143 T	29·95	161
D ,, (Town Hall)	F. Newman, Esq.	8	1	0	83	27·42	147
Wootton (Fernhill)	F. Brodie, Esq.	8	0	6	118 T	26·24	...
D† Osborne (Newbarn Cottage)	R. Scott, Esq.	8	0	8	172 ⅄	24·15	147
D West Cowes (Holmwood)	C. T. Maw, Esq.	8	0	8	40 T	23·60	151
Hurst Castle	The Meteor. Council	8	0	11	9	23·07	145
D Bournemouth (Wellington House)	Messrs. Primavesi Bros	5	1	0	100 T	25·58	157
,, (Lansdowne Road)	Miss Sworn	5	1	2	123 T	27·23	143
D Christchurch (Mudeford)	F. H. D. Eyre, Esq.	5	0	3	15 L	23·80	130
D Lymington (Pennington)	Miss E. S. Lomer	5	0	9	96 T	23·67	130
D Christchurch (Heron Court)	Earl of Malmesbury	8	0	5	...	28·76	152
D Portsmouth (Fort Cumberland)	P. Murch, Esq., C.E.	8	0	9	16 ⅄	17·88	117
D ,, (Milton)	Dr. Mumby	5	1	0	18	23·15	157
D North Hayling	F. Padwick, Esq.	5	1	0	10	20·61	128
D Porchester (Noel Cottage)	Miss Montgomery Frost	5	1	0	...	22·02	159
D Havant (Farlington)	H. R. Smith, Esq., C.E.	5	1	0	77 T	21·87	151
,, (,,) M	,, ,, ,,	5	1	0	77 T	21·80	...
D ,,	,, ,, ,,	5	1	0	25 T	23·55	150
,, M	,, ,, ,,	5	1	0	25 T	23·37	...
D Emsworth (Redlands)	F. Jacomb Hood, Esq.	5	1	0	90 T	27·54	145
D Southampton (Cadland)	J. Laurie, Esq.	8	4	6	52 T	24·94	151
D Lyndhurst (Cuffnells)	R. Hargreaves, Esq.	5	0	9	200 T	25·79	129
D Southampton (Netley)	Prof. J. Lane Notter	8	0	5	37 ⅄	23·95	157
D ,, (,, Lake Ho.)	Col. Pennington	8	1	0	54 ⅄	23·37	169
,, (Ordnance Surv. Off.)	Gen. Sir C. Wilson, FRS.	5	1	0	79 ⅄	23·49	140
D ,, (Totton)	Mr. W. F. Harold	5	5	0	85	25·24	146
D Wickham (West Lodge)	Rev Stanhope Rashleigh	5	0	11	315 T	23·47	149
D Botley (Botley Hill)	A. Jenkyns, Esq.	5	1	6	36 T	21·20	124
D ,, (Beechcroft, Curdridge)	Miss Pasley	8	2	0	100	25·17	176
D ,, (The Hollies, ,,)	G. M. Bradley, Esq.	5	1	0	150 T	21·23	134
D Horndean (St. Catherines)	Miss Barnes	8	1	7	417 T	27·12	154
D† Southampton (Red Lodge)	R. C. Hankinson, Esq.	5	0	6	206	24·54	149
,, (,, ,,) M	,, ,, ,,	5	4	0	200 T	25·98	..
D Fordingbridge (Oaklands)	Mrs. Westlake	8	1	0	135 T	25·42	124
D Hambledon (Rosecroft)	Mr. L. Dawes	5	2	6	200	26·35	162
Bishops Waltham (Swanmore House)	W. H. Myers, Esq., M.P.	8	1	0	390 T	22·08	119
,, ,, (Northbrook Ho.)	H. W. Trinder, Esq.	5	1	0	140	23·62	135
Droxford (Fir Hill)	Rev. S. King	5	3	6	212	24·10	166
Fordingbridge (Wood Green)	H. Hinxman, Esq.	5	1	2	140 ⅄	26·92	...
Otterbourne Hill Reservoir ... M	W. Matthews, Esq., CE	5	18	0	273 ⅄	16·42	...
D ,, (W.W., Shawford)	,, ,, ,,	5	1	0	113 ⅄	23·70	139
,, (,, ,,) M	,, ,, ,,	5	1	0	113 ⅄	23·38	...

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	HAMPSHIRE—(*con.*)						
	Liss (Liss Place)	F. Coryton, Esq.	7	0 7	250 ⅄	27·44	...
D	,, (Lingwood)	R. Barnes, Esq., M.D.	5	0 9	510	32·05	131
D	Alresford (Hinton Ampner)	Rev. J. Heberden	8	4 4	330	26·12	138
D	,, (Ovington)	Rev. H. F. La M. Stowell	5	1 0	221 T	26·15	155
	,, House	Mrs. Wood	5	1 6	238 ⅄	23·93	124
	Greatham (King's Holt)	Genl. Parr	5	2 0	325 T	24·80	...
	Alton (East Tisted Rectory)	Rev. F. Howlett	5	1 1	420 ⅄	29·97	...
D	,, (Rotherfield Pk.)	Mr. A. C. Hunter	5	1 6	540	30·68	153
D	,, (The Wakes, Selborne)	F. W. C. Read, Esq.	5	5 0	400	28·65	152
D	Winchester (Harestock)	Col. Knight	5	1 0	302 ⅄	27·43	172
	,, (The Hermitage, Wyke)	Miss A. F. R. Fuller	5	1 0	250 T	26·77	140
	Liphook (Fowley)	E. A. Lee, Esq.	5	0 10	296 T	29·28	177
	,, (White Hill Chase)	Col. R. H. Maude	5	1 0	300 ⅄	24·99	121
	Bramshott Rectory	Mr. W. Steptoe	5	1 0	414	26·68	...
D	Swarraton Rectory	Rev. W. L. W. Eyre	5	1 0	310 ⅄	25·57	152
	Alton (Thedden Grange)	J. G. Wood, Esq.	8	3 0	600 T	29·16	...
D†	,, (Ashdell)	F. Crowley, Esq.	8	3 6	433 ⅄	27·31	151
	,, (Eagles Nest)	,, ,,	5	52 4	505	15·52	...
D	Whitchurch (Long Parish)	C. Durnford, Esq.	...	...	...	24·25	150
	Andover (The Knoll)	G. H. Westbury, Esq.	6	0 10	196 T	24·77	148
D	Tedworth House [Ludgershall]	Mr. G. A. Inglefield	5	1 8	357 T	26·99	134
	Aldershot	J. Goss, Esq.	5	1 8	250 ⅄	23·28	132
D	Basingstoke (Chapel Hill)	G. Stephens, Esq.	5	1 0	328 T	22·21	167
	Rotherwick (Tylney Hall)	C. E. Harris, Esq.	5	0 8	330	20·75	
	Basingstoke (Monk Sherborne)	Rev. Canon Willes	5	1 6	314 ⅄	22·02	...
D†	,, (Sherborne St. John)	Rev. D. W. Chute	5	1 2	267 T	23·06	154
D	Winchfield (Elvetham Park)	Mr. T. Jones	8	1 0	217 T	21·44	147
	Farnborough (The Grange)	Major Holt	5	1 0	232 T	25·63	182
D	,, (The School)	Rev. G. C. Carter	12	9 0	250	18·43	122
	Hartley Wintney	Mr. W. G. Machin	5	1 2	222 T	21·92	158
	,, Grange	F. Walkinshaw, Esq.	5	1 0	221 ⅄	21·65	146
	,, Wespall	late Rev. J. C. Keate	8	0 9	233 ⅄	19·37	...
D†	Strathfield Turgiss	Rev. C. H. Griffith	5	3 0	200 ⅄	22·35	191
	Heckfield (Park Corner)	J. Martineau, Esq.	5	1 2	257	18·01	119
	BERKS.						
D	Sandhurst Lodge	Sir W. J. Farrer	8	2 9	260	23·35	170
D	Sunninghill (Lynwood)	G. Rodie Thompson, Esq.	5	1 0	260	23·99	149
	Newbury (Donnington Sq.)	W. J. Cowper, Esq.	5	3 6	286 T	22·35	150
	Hungerford (Kintbury)	Sur.-Gen. Woolfryes, CB	5	1 0	297 T	23·37	185
D	Wokingham (Wellington Coll.)	S. A. Saunder, Esq.	5	1 0	283 ⅄	21·81	140
	Hungerford (Denford Park)	Gen. Cherry-Garrard	5	1 2	430 T	26·21	160
D	Bracknell (Warfield)	Rev. B. C. Littlewood	5	0 4	199 T	19·89	185
D	Wokingham (Binfield Park)	W. R. Cookson, Esq.	8	1 1	...	19·67	150
	Old Windsor (Beaumont College)	Rev. R. Robinson	5	1 0	105	21·66	...
D	,, ,, (The Friary)	Mr. J. Williams	7	1 0	100	23·40	136
D	Windsor (Royal Gardens)	Mr. T. Edwards	5	1 0	...	19·99	165
	Reading (Englefield)	R. Benyon, Esq.	5	1 1	...	20·60	140

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground		Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft.	in.	feet.	inches.	
BERKS—(*con.*)							
D Reading (Ellerslie)	Rev. A. Cheales	5	1	0	195	20·18	131
D ,, (Russell Street)	Dr. Workman	5	1	3	154	20·04	146
D ,, (Portland Place)	C. N. Pearson, Esq.	5	1	0	120	20·62	167
D ,, (,, ,,)	,, ,, ,,	8	2	6	120	20·97	167
D ,, (Forbury Gardens)	A. E. Collins, Esq., C.E.	5	1	5	145 ⇈	18·11	149
,, (East Thorpe)	A. Palmer, Esq.	5	3	0	157 ↑	19·23	151
,, (Earley)	M. J. Sutton, Esq.	8	1	6	...	17·88	...
D Newbury (Welford Park)...*old g.*	Mr. C. Ross	5	1	0	335 ⇈	24·24	174
,, (,, ,,) *new g.*	,, ,,	5	1	0	341 ↑	23·92	174
D ,, (Weston)	R. Osmond, Esq.	5	0	6	338 ↑	24·10	166
D Yattendon Court	A. Waterhouse, Esq. R.A.	5	1	0	450	20·29	159
D Lamborne	W. Palmer, Esq.	5	0	9	415 ↑	23·05	146
D Maidenhead (Lowood)	Gen. Davies	8	1	0	167 ↑	19·81	147
D ,, (Castle Hill House)	F. C. Young, Esq.	6	1	0	163	20·93	174
D ,, (Cookham Vic.)	Rev. R. W. Rogers	5	1	3	90 ↑	19·70	136
D Wantage (Letcombe Regis)	S. W. Silver, Esq.	5	0	9	...	21·92	163
,,	Mr. W. Hanson	5	1	0	304	22·37	139
Wallingford Castle	J. Kirby Hedges, Esq.	5	0	9	175 ⇈	17·72	155
D Little Wittenham Rectory	Rev. Percy Burd	5	1	0	187 ↑	18·63	145
D ,, ,,	T. Latham, Esq.	5	2	0	187	18·61	140
D Long Wittenham (Manor Ho.)	Capt. Clutterbuck, R.N.	12	1	0	165 ↑	20·78	139
,, ,, (Lovegrove's Cott.)	Rev. F. C. Clutterbuck	5	1	0	165	21·28	...
D Abingdon (Sutton Courtney)	Mrs. Black	5	1	0	170 ↑	19·45	160
Faringdon (The Elms)	W. Dundas, Esq.	5	1	0	340 ↑	19·36	156

DIVISION III.—SOUTH MIDLAND COUNTIES.

HERTS.							
D Southgate (The Lawns)	G. A. Church, Esq.	5	0	6	240 ↑	20·32	180
D† Rickmansworth (Moor Park)	Rt. Hon. Lord Ebury	5	2	0	340	28·77	165
D Elstree (Aldenham House)	Mr. E. Beckett	10	5	0	...	19·86	129
D Watford (Oaklands)	E. Harrison, Esq.	5	5	6	273	26·28	157
,, (Frogmore)	A. P. Blathwayt, Esq.	5	1	0	180	25·30	150
,, (Colne Valley W.W.)	J. Hopkinson, Esq.	5	1	0	220	23·61	...
D ,, (Kytes)	Mrs. Horsman	5	1	0	239	23·89	141
Barnet (Gas Works)	J. Hopkinson, Esq.	8	0	9	212	20·42	125
D Cheshunt Old Nurseries	Messrs. Paul & Son	5	1	0	92 ↑	21·32	141
D ,, College	Rev. Dr. Reynolds	5	1	1	94	20·58	138
D Broxbourne (Stafford House)	G. J. Newbery, Esq.	5	1	0	118 ↑	20·56	162
D Hemel Hempstead (Nash Mills)	Messrs. J Dickinson & Co.	12	3	9	237 ↑	22·78	151
D ,, ,, (Apsley Mills)	,, ,, ,,	24	0	9	260	22·78	153
D St. Albans (The Grange)	J. Hopkinson, Esq.	5	1	0	380 ⇈	25·00	170
† ,, (Gorhambury)	Rt. Hon. Earl Verulam	5	1	0	425 ↑	26·80	118
D Great Berkhampstead (Rosebank)	E. Mawley, Esq.	8	1	0	401 ⇈	23·94	163
,, ,, (,,)M	,, ,,	8	1	0	401 ⇈	23·44	...
D ,, ,, (Fairhill)	W. B. Hopkins, Esq.	5	1	0	550 ↑	24·11	168
D ,, ,, (Gt. Gaddesden)	Rev. W. Tyrwhitt Drake	8	1	0	426 ⇈	24·37	159
D Hertford (Haileybury College)	A. A. Lea, Esq.	5	1	0	260	22·38	142

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Ground in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
	HERTS.—(*con.*)							
	Hertford (Bayfordbury)	W. C. Baker, Esq.	8	1	2	250	20·38	152
D	,, (Marden Hill, Tewin)	R. Hoare, Esq.	5	0	6	251 T	21·22	148
	Tring (Pendley Manor)	J. G. Williams, Esq.	5	2	0	500 ?	22·60	178
D	,, (Elm House)	E. J. Le Quesne, Esq.	5	1	2	460	21·12	155
D	,, (Cowroast)	H. Thomas, Esq., C.E.	5	4	2	345 L	22·80	121
	Harpenden (Rothamstead)	Sirs Lawes & Gilbert	5	0	9	420 T	23·81	151
	,, (,,)	,, ,, ,,	8	0	9	420 T	23·80	145
D	,, (,,)	,, ,, ,,	72X87	0	9	420 T	25·10	156
	Hatfield (Brocket Hall)	J. Hopkinson, Esq.	8	1	0	250	22·68	...
D	Ware (Red House) *new g.*	J. Francis, Esq., C.E.	5	0	9	112 T	19·79	135
D	,, (Fanham's Hall)	Miss Joyce Croft	8	1	0	253 T	21·50	159
D	Welwyn Rectory	Rev. Canon Wingfield.	5	0	4	228 T	22·18	144
	,, (Danesbury)	A. M. Blake, Esq.	5	0	9	405 T	22·72	145
D	,, (Datchworth Rectory)	Rev. J. Wardale	5	1	0	386 T	21·80	148
D	Much Hadham	T. W. Mott, Esq.	5	1	0	222 B	21·35	143
D	Kensworth [Dunstable]	Miss Jones	5	1	0	630 B	24·45	144
D	Bennington House	Rev. Dr. Parker	5	1	0	408 ⅄	21·54	159
D	Buntingford (Hamels Park)	Mr. E. Wallis	5	1	0	400 T	20·94	137
D†	Hitchin (Wratten)	W. Lucas, Esq.	5	2	1	238 ⅄	20·77	155
	,, (The Maples)	W. Hill, Esq.	8	1	1	220 T	20·90	145
D	,, (Bancroft)	F. Ransom, Esq.	5	0	9	212 T	21·53	160
	,, (High Down)	J. Pollard, Esq.	5	1	1	422 ⅄	22·14	159
	Weston Park	M. R. Pryor, Esq.	5	0	8	470 T	24·55	152
D	Buntingford (Throcking Rectory)	Rev. C. W. Harvey	5	1	0	484 T	22·34	168
D	Royston (Therfield Rectory)	Rev. J. G. Hale	5	4	3	500 ?	23·53	161
D†	,,	H. Wortham, Esq.	8	0	6	269 ⅄	20·52	146
	BUCKINGHAMSHIRE.							
D	Slough (Langley)	R. H. Major, Esq.	8	0	10	85 T	19·80	137
D	,, (Upton Hall)	G. Bentley, Esq.	5	3	0	90 ⅄	17·57	129
	,, (,, ,,)	,, ,, ,,	8	...		...	17·76	...
	,, (,, Park)	,, ,, ,,	...	...		...	23·10	...
D	Taplow Court	W. H. Grenfell, Esq., MP	8	1	0	217 T	18·09	122
	Greenlands [Henley-on-Thames]	Hon. F. Smith, M.P.	8	1	3	116	19·25	139
	Marlow (Cromwell Ho.)	E. Clark, Esq., C.E.	5	2	10	103	21·04	...
	High Wycombe	H. S. Wheeler, Esq.	8	0	9	253 ⅄	20·33	...
	Chalfont St. Giles (The Stone)	Col. Phipps	5	1	0	270 T	24·73	...
D	Amersham (The Plantation)	G. Weller, Esq.	8	1	0	465 T	23·89	145
D	Wendover (Halton Gardens)	Mr. Sanders	5	1	10	400	21·39	138
	Aylesbury (New Road)	J. Copcutt, Esq.	12	1	0	280 T	18·10	...
	,, (Mentmore)	J. Smith, Esq.	5	1	6	...	19·82	...
D†	Winslow (Addington Manor)	Rt. Hon. Lord Addington	8	1	0	309 ⅄	20·20	148
D†	Buckingham (Adstock)	J. E. S. Weston, Esq.	5	0	9	350 T	19·37	146
D	Stony Stratford (Thornton)	Mr. W. Sturdy	5	1	6	...	19·57	127
	Woburn Sands (Sandymount)	C. P. Stuart, Esq.	5	1	0	...	20·66	155
D	Newport Pagnell	R. Littleboy, Esq.	5	2	0	196 T	17·92	132
	Olney (Filgrave Rectory)	Rev. J. Tarver	8	0	8	280	18·82	119

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge: Diameter	Rain Gauge: Height Above Ground	Rain Gauge: Height Above Sea Level	Depth of Rain. 1893	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	OXFORD.						
D	Whitchurch Rectory	Rev. J. Slatter	10	1 0	150 ⅄	18·90	145
D	Caversham (Cane End)	D. Vanderstegen, Esq	5	0 4	400 ?	22·34	135
	,, (Kidmore Grange)	M. J. Sutton, Esq.	5	1 0	...	19·40	...
	Henley-on-Thames (Greys)	Rev. N. Pinder	5	2 6	370 T	21·88	...
D	,, ,, ,, (Northfield Ho.)	J. W. Guy, Esq.	5	1 0	...	22·08	146
D	,, ,, ,, (Assenton)	Mr. J. Ratty	5	1 0	281	22·58	133
D	Dorchester	Col. Blunt	5	0 6	169	19·36	143
D	Abingdon (Culham)	Rev. F. C. Clutterbuck	5	1 0	200 ⅄	19·34	151
D	Watlington (Pyrton Manor)	Cecil Hamersley, Esq.	5	1 0	321 T	21·48	162
	Wheatfield Rectory	Rev. C. V. Spencer	5	1 2	...	20·80	...
D	Toot Baldon (Potlands)	Miss Clinkard	5	1 0	288	20·70	146
	Iffley	F. R. Fox, Esq.	5	6 0	215	18·60	...
	Waterstock	W. H. Ashhurst, Esq.	8	2 0	206 T	20·04	160
D†	Oxford (Mag. Coll. Laboratory)	E. Chapman, Esq.	5	1 0	186 ⅄	16·57	148
	,, (,, ,, ,,)	,, ,, ,,	5	33 11	223 ⅄	14·59	...
	,, (Radcliffe Observatory)	E. J. Stone, Esq., F.R.S.	8	1 8	210 ⅄	17·65	142
D	,, (,, ,,)	,, ,, ,,	11	2 4	210 ⅄	18·60	135
	,, (,, ,,)	,, ,, ,,	10	22 0	230 ⅄	17·71	146
	,, (,, ,,)	,, ,, ,,	10	112 0	320 ⅄	11·84	129
D	,, (St. Giles')	Miss Tawney	8	1 3	211 ⅄	19·13	149
D	,, (Norham Road)	Rev. C. B. Mount	10	1 2	220 ?	17·83	135
D	,, (Headington Hill)	Miss Davenport	5	0 10	354	19·29	159
D	,, (Elsfield) ..... *New gauge*	H. Parsons, Esq.	5	1 0	330	18·41	153
	Stanton St. John's	Miss Thomson	8	1 0	340	18·71	155
	,, ,, ,, (Woodperry)	J. Thomson, Esq.	6	1 0	399 T	19·44	165
	Chipping Norton (Kingham)	E. Lockwood, Esq.	5	4 0	442	20·21	...
D	Bicester (Middleton Park)	Mr. B. Hope	5	2 6	380	19·75	131
	,, (Stratton Audley Pk.)	Colonel Gosling	5	2 4	381 ⅄	17·06	121
	Steeple Aston	B. S. Ogle, Esq.	5	0 5	400 T	21·78	156
D	,, ,, (The Grange)	Adl. Bradshaw, C.B.	8	1 0	400 T	21·66	160
D	Banbury (Bloxham Grove)	Rev. G. Warriner	8	3 10	387 ⅄	20·04	127
D	,, (,,)	Col. O. Ommanney	8	2 0	400 T	19·31	135
D	,, (Sibford Ferris)	J. Lamb, Esq.	5	1 0	590 ⅄	21·24	166
D	,, (Ark House School)	A. J. Beale, Esq.	5	1 0	310	19·73	126
	NORTHAMPTON.						
	Brackley (Market Place)	Messrs. Durran & Smith	8	6 10	400 T	21·04	136
	,, (East Hill)	C. A. Markham, Esq.	...	...	...	21·39	170
D	Grimsbury [Banbury]	W. E. Wood, Esq.	5	1 3	320 T	19·13	122
	Thorpe Mandeville [Banbury]	Mr. S. Baines	5	1 0	530	20·57	133
D	Towcester (Whittlebury)	W. S. Miller, Esq.	5	1 6	350	20·95	144
D	,,	P. Phipps, Esq.	5	1 0	290	20·64	140
	,, (Easton Neston)	Mr. E. Slarke	8	1 0	340 T	21·83	105
D	Stoke Bruerne Rectory	Rev. W. Wilson	8	1 0	320 T	18·97	146
	Blisworth	C. A. Markham, Esq.	...	...	...	19·17	128
D	Litchborough	E. Grant, Esq.	5	1 1	500	24·33	158
D	Daventry (Fawsley)	Lady Knightley	5	1 0	477 T	19·49	162
D	Easton Mauduit Vicarage	Rev. H. A. Boys	8	1 0	245 ⅄	17·68	160

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above SeaLevel	Depth of Rain. 1893	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	NORTHAMPTON—(*con.*)						
D	Castle Ashby	R. G. Scriven, Esq.	5	1 0	263 ⅄	17·56	155
D	Northampton (Little Houghton)	Mr. J. Brawn	5	2 4	...	18·58	150
	,, (Berrywood)	R. Greene, Esq.	8	1 0	395	18·50	141
	,, (Hazlewood Road)	C. A. Markham, Esq.	5	5 0	253	17·29	119
	,, (Elysium Terrace)	,, ,, ,,	...	...	...	17·86	156
D	,, (Pytchley Street)	Mr. E. Ball	5	1 6	270	18·06	149
D	,, (Kingsthorpe)	S. Law, Esq.	5	1 0	280	18·87	151
D	Althorp House	Miss Chowler	8	3 10	310 ⅄	17·02	133
	Great Brington	C. A. Markham, Esq.	...	...	..	16·85	145
D	Pitsford (Sedgebrook)	,, ,, ,,	5	1 0	311 ⅄	19·56	139
	,, (,,) M	,, ,, ,,	5	1 0	311 ⅄	19·33	...
D	Daventry (Waterloo)	F. F. Rodhouse, Esq.	5	1 3	436 ⅄	21·26	165
	Earls Barton Vicarage	C. A. Markham, Esq.	5	1 4	280 T	18·21	167
D	Holdenby Rectory	Mr. C. Bond	5	1 6	...	20·27	166
D	Wellingborough (Swanspool)	N. P. Sharman, Esq.	5	0 2	155	18·33	161
D	,, (Croyland Abbey)	E. Sharman, Esq.	5	0 5	...	18·34	172
D	Thrapstone (Hargrave)	Rev. R. S. Baker	5	1 0	220 ⅄	20·02	125
D	Ravensthorpe (Coton Mill)	G. S. Eunson, Esq.	5	1 0	355	19·82	151
	Hazelbeach	C. A. Markham, Esq.	5	3 0	566 T	22·77	137
D	Kettering (Sewage Works)	T. R. Smith, Esq., C.E.	8	1 0	199 ⅄	18·13	127
D	,, (Headlands)	C. W. Lane, Esq.	5	1 0	280	19·26	160
	Welford (Salford House)	C. A. Markham, Esq.	5	1 3	...	20·69	156
	Rothwell	J. More, Esq., M.D.	12	1 2	300	16·08	126
	Aldwinkle St. Peter	C. A. Markham, Esq.	...	...	...	18·45	137
	Oundle	J. M. Siddons, Esq.	5	4 6	105 T	16·71	126
	Rockingham Castle	Mr. J. H. Brown	5	4 4	400 L	17·99	111
	Apethorpe Lodge	A. Jolly, Esq.	5	0 8	150	23·13	141
	Kingscliffe (Fineshade)	C. A. Markham, Esq.	...	...	...	18·90	122
	Peterborough (Thorpe Hall)	Col. C. I Strong	5	1 0	...	16·25	...
D	Easton [Stamford]	Mr. H. Watkins	5	0 9	271 T	15·32	152
D	Maxey Vic. [Market Deeping]	Rev. W. D. Sweeting	5	1 0	32 ⅄	17 96	164
	,, ,, [,, ,,] M	,, ,, ,,	5	1 0	32 ⅄	17·75	...
	HUNTS.						
D	St. Neots (Waresley Park)	Lady C. Duncombe	5	0 11	190	22·06	130
	Offord D'Arcy	W. Priestley, Esq.	5	0 9	50	18·25	...
D	Huntingdon (Brampton)	Miss May Bird	5	1 1	...	21·12	159
D	,,	F. I. Howson, Esq.	5	0 11	...	19·02	124
D	Alconbury	Rev. R. Conway	5	1 0	...	17·87	142
	Whittlesea Mere	A. Lunn, Esq., C.E.	8	1 6	...	17·13	151
	BEDFORD.						
D	Luton (Pumping Station)	T. R. Roscoe, Esq., C.E.	5	1 0	343 ⅄	23·09	153
D	Ampthill (Hart Hill)	W. H. Brown, Esq.	5	5 0	520	21·92	159
D	,, (Higham Bury)	E. J. Jekyll, Esq.	5	1 0	310 ?	22·40	145
	,, (Silsoe)	H. Trethewy, Esq.	5	1 0	214 T	25·83	130
	,, (Wrest Park)	Mr. G. Ford	5	1 1	...	24·23	...
D†	Aspley Guise (Oaklands)	E. E. Dymond, Esq.	5	1 0	410 T	18·98	155

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground.	Height Above Sea Level	Depth of Rain. 1893	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	BEDFORD—(*con.*)						
	Woburn (Crawley Farm)	A. C. Elliott, Esq.	5	3 8	300	19·88	140
D	Stotfold [Baldock]	Dr. Swain	5	1 0	220 T	23·61	166
	Ampthill	Mr. J. Brown	5	1 0	313 T	22·16	149
	,, (Maulden)	Mr. S. Street	6	1 6	...	19·35	...
D	Woburn (Hulcote Rectory)	Rev. B. Chernocke Smith	5	1 0	310	19·85	146
	Biggleswade (Old Warden)	Mr. G. R. Allis	8	1 2	...	24·34	127
D	,, (Brooke House)	R. F Conder, Esq.	5	1 0	103 T	21·86	142
D	,, (Caldecote)	Rev. M. E. Ruston	5	0 10	...	20·27	140
D	Potton (Wrestlingworth)	H. J. King, Esq.	5	1 0	...	21·86	153
	,, (Vicarage)	Rev. G. E. Gwynne	5	0 10	145	20·66	...
D	Sandy (The Lodge)	Rt. Hn A. W. Peel, M.P.	5	1 0	...	21·14	138
	Bedford (Western Street)	late D. Robie, Esq.	5	0 10	112 T	20·66	...
D	,, (The Grove)	W. B. Graham, Esq.	5	1 0	108 T	20·16	149
	,, (St. Peter's Street)	Mr. W. Godfrey	5	1 0	114 T	19·46	...
	,, (Milton Ernest)	F. Newbery, Esq.	5	5 0	137 ⅄	19·83	112
	Podington (Hinwick House)	R. R. B. Orlebar, Esq.	5	1 0	265 T	17·77	...
	CAMBRIDGE.						
D	Odsey [Royston]	H. Geo. Fordham, Esq.	5	1 0	260 T	21·01	167
	Abington Pigotts [Royston]	W. G. F. Pigott, Esq.	8	0 8	130	20·49	145
D	Carlton	G. H. Long, Esq.	5	1 0	340 T	23·01	162
	Trumpington	F. Parsons, Esq.	6	1 0	...	23·55	149
D	,, (Gilmerton)	S. Nutter, Esq.	8	0 9	...	21·30	164
	Granchester Mill	H. F. Fryer, Esq.	5	5 0	31 ⅄	22·25	141
D	Cambridge (Fulbourne Pmpng Sta)	W. W. Gray, Esq., C.E.	5	1 0	37 ⅄	21·19	181
D	,, (W. W. Cherryhinton)	,, ,, ,,	5	1 0	35 ⅄	19·23	159
D	,, (Sidney Street)	W. E. Pain, Esq.	8	60 0	92 ⅄	19·53	167
	,, (Pinehurst)	H. F. Fryer, Esq.	...	0 10	36	22·00	...
	,, (Trinity College)	,, ,, ,,	8	4 0	40	20·39	147
D†	,, Observatory	Sir R. S. Ball, F.R.S.	5	1 0	84 ⅄	21 19	143
	,, ,,	,, ,, ,,	8	1 0	84 ⅄	21·07	151
	Quy Hall	Mrs. Francis	5	0 5	61	21·46	149
D	Ely (Stretham)	Mr. J. Housley	9	4 9	13 ⅄	21·58	133
D	,, (,, Ferry)	Mr. C. Wright, Junr.	8	5 0	...	21·29	135
	Mepal Engine	H. F. Fryer, Esq.	...	20 6	25	12·77	...
	Littleport (Highfield House)	H. G. Martin, Esq.	8	2 7	67	17·04	136
D	Chatteris (Aylesby House)	A. H. Ruston, Esq.	8	0 6	45 ?	18·33	131
	,, (The Priory)	H. F. Fryer, Esq.	5	0 6	45	18·70	...
	,, (Horseway Lock)	A. Lunn, Esq., C.E.	8	15 0	...	13·39	134
	March	,, ,,	9	2 0	...	21·53	128
*	,, (Stags Holt)	W. C. Little, Esq.	5	1 0	11 T	20·31	...
	Upwell (Marmont Priory Lock)	A. Lunn, Esq., C.E.	8	1 1	...	16·73	154
	,, (Euximoor House)	H. West, jun., Esq.	5	0 8	15 ?	18·48	126
D	Thorney	T. R. S. Lyster, Esq.	8	3 6	9	16·89	131
D	,, (Wryde House)	S. M. Egar, Esq.	5	1 0	11 L	18·75	135
D	Wisbech (Bank House)	A. Peckover, Esq.	8	0 8	6	19·80	135

DIVISION IV.—EASTERN COUNTIES.

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
	ESSEX.							
D	Barking Outfall	A.R. Binnie, Esq., C.E.	8	0	6	6 ↑	16·97	139
D	Shoeburyness	The Asst. Super. Expts.	5	7	3	18	14·82	129
D	West Ham (Abbey Mills)	A. R. Binnie, Esq., C.E.	8	1	0	11 ↑	18·79	133
D	Southend (Water Works)	C. S. Bilham, Esq.	8	1	0	112 ↑	17·61	128
D	,, (,, ,, Eastwood)	,, ,, ,,	8	1	0	50 ↑	17·24	133
D	Romford (North Ockendon)	Rev. R. T. Crawley	5	1	3	100 ↑	17·41	131
D	Manor Park (Albany Road)	A. J. Wilmshurst, Esq.	5	3	0	...	17·55	181
	Ilford (Great Gearies)	Mr. J. Douglas	5	1	0	120	?15·15	...
D	Upminster Hall	G. P. Hope, Esq.	5	1	0	120	19·17	169
D	Walthamstow (Forest Road)	F. W. Freir, Esq.	5	1	0	70 ↑	19·91	160
	,, (Prospect Hill Lodge)	J. E. Goodchild, Esq.	5	1	3	140 ↑	20·04	145
D	Woodford (Brancepeth House)	Albert Spicer, Esq. M.P.	5	1	0	...	18·73	106
	,, (Hagger Lane)	W. B. Bryan, Esq., C.E.	8	1	0	176 ↑	17·68	118
D	Billericay (Burghstead Lodge)	General Branfill	5	1	0	310 ↑	18·47	137
D	Havering	Mrs. Pemberton-Barnes	5	1	0	...	19·25	174
	Brentwood (Sawyers Hall)	Rogers Field, Esq., C.E.	5	1	0	270 ↑	19·72	...
	Loughton (High Beech)	W. B. Bryan, Esq., C.E.	8	1	0	376 ↑	17·90	157
	Maldon (Norton Hall)	C. Clarke, Esq.	5	2	6	130 ↑	19·08	106
	Waltham Abbey	W. B. Bryan, Esq., C.E.	8	1	0	62 ↑	19·65	154
D	,, ,, (Gunpr Factory)	The Superintendent	5	1	6	70	19·31	116
	Epping (The Hemnalls)	J. Nicholl, Esq.	8	0	8	345	26·25	127
D	Bradwell-on-Sea (Bradwell Hall)	J. C. Chillingworth, Esq.	5	1	1	27	17·94	113
	,, ,, (Down Hall)	R. Page, Esq.	5	1	0	20	19·21	133
D	Chelmsford (Writtle)	E. Rosling, Esq.	5	0	9	140 ↑	17·01	124
	,, (High Street)	F. Chancellor, Esq.	8	1	0	86 ↑	18·17	107
	,,	The Royal Meteor. Soc.	5	1	0	135	20·21	142
D	,, (Roxwell)	R. W. Christy, Esq.	5	1	0	190 ↑	18·80	107
	,, (Broomfield)	W. Impey, Esq.	5	1	4	144 ↑	18·41	...
D	East Mersea Rectory	Rev. F. J. Ball	5	1	0	56 ↑	18·73	175
D	Harlow (Moor Hall)	Mr. W. Monk	5	1	3	240	21·70	116
D	,, (Sheering)	Rev. Canon Hill	5	1	0	214 ↑	18·23	129
	Witham (Little Braxted Hall)	J. Taber, Esq.	5	1	0	50	17·65	131
	,, (Rivenhall)	Rev. F. Bridges	5	1	0	138 ↑	18·41	...
D	Thorpe le Soken (Landermere)	C. Hempson, Esq.	5	1	0	...	20·00	111
	Colchester (Surrey Villa)	J. C. Hopwood, Esq.	5	1	0	110 ↑	19·21	112
D	,,	H. Goodyear, Esq., C.E.	8	16	6	82 ↑	19·20	148
D	,, (Hill House, Lexden)	S. F. Hurnard, Esq.	5	1	0	90 ↑	16·76	137
	,, (,, ,,)M	,, ,, ,,	5	1	0	90 ↑	17·16	...
D	,, (Home Farm, ,,)	Mr. W. Bird	5	1	0	125 ↑	16·77	140
D	Braintree (Bocking. Fennes)	H. S. Tabor, Esq.	5	1	0	240 ↑	18·40	152
	,, (,, Place)	S. Courtauld, Esq.	8	2	3	212 ↑	20·13	113
	Dunmow (Saling Grove)	Capt. J. Nicolls Harrison.	8	0	8	290 ↑	19·55	...
	Earls Colne (Chalkney House)	H. F. Hills, Esq.	5	1	0	180 ↑	18·37	106
D	Harwich (Ramsey)	A. Hempson, Esq.	5	0	6	150	19·33	133
	Halstead	The Royal Meteor. Soc.	5	1	0	144	18·73	142
	Langham Rectory	Rev. T. S. Raffles	5	0	7	134	22·28	161
D	Saffron Walden (Newport)	Rev. G. F. Tamplin	5	3	0	208 ↑	20·52	145
D	,, ,,	S. Leverett, Esq.	5	1	0	199 ↑	21·33	161

DIVISION IV.—EASTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	SUFFOLK.						
D	Erwarton Hall [Harwich]	J. A. Hempson, Esq...	8	0 6	...	22·99	105
D	Ipswich (Woolverstone Park)	C. H. Berners, Esq. ...	8	1 0	100 T	20·09	142
D	,, (Orwell Park)	Mr. J. Wallis	8	1 0	60 ⅄	22·89	148
	,, (Belstead Hall)	A. Harwood, Esq.	8	9 0	120 T	19·57	133
D	Alderton Rectory	Rev. C. G. Archer	8	2 2	...	22·31	123
D	Hollesley (Shingle Street)	Mr. J. C. Mills	5	2 6	...	20·10	139
D	Sudbury (Friars Street)	E. Ransom, Esq.	5	1 7	93 T	20·80	165
D	,, (Newton Road)	J. Alexander, Esq. ...	5	1 2	130 T	20·53	167
	Ipswich (Bishop's Hill)	G. A. Biddell, Esq., C.E.	5	1 0	104 ⅄	21·89	...
D	,, (Clare Lodge)	E. R. Turner, Esq., C.E.	5	1 0	178 T	20·79	145
D	Cavendish	S. J. Garrett, Esq.....	5	1 0	...	21·53	147
	Lavenham Hall	W. Biddell, Esq.	5	1 11	220	19·92	105
D	Woodbridge (Co Asylum Melton)	.Dr. Eager	8	1 4	100 ⅄	20·60	164
D	,, (The Cedars, ,,)	.W. P. T. Phillips, Esq.	5	...	...	22·29	157
D	Rendlesham Hall	Rt Hon Lrd. Rendlesham	5	1 9	88 ⅄	19·78	135
D	Haverhill (Great Thurlow)	A. Boa, Esq.	5	1 0	241 T	21·77	163
	Clare (Stansfield)	J. Slater, Esq.	5	1 0	...	22·41	...
D	,, (Hawkedon Rectory)	Rev. B. P. Oakes	5	3 4	305 ⅄	21·85	175
	Ash Bocking Vicarage	Rev. M. B. Cowell.....	5	7 3	231 T	18·49	102
D	Aldborough (Aldringham Ho.)	F. Garrett, Esq.....	8	4 5	50 B	20·54	158
D	Great Glenham	Col. Bloomfield	5	0 10	80 T	22·89	120
	Ickworth Park	Mrs. A. H. Wood	5	1 0	250	27·13	163
D	Framlingham (Mount Pleasant)	Mr. R. Whitehead....	5	1 2	125	21·31	141
	Little Saxham	Rev. H. J. Kilner	8	0 10	...	24·97	163
D	Bury St. Edmunds (Orchard St.)	Mr. P. Grieve.....	5	1 6	...	19·59	144
	,, ,, ,, (Abbeygate St.)	Mr. O. A Clark	5	65 0	...	15·90	116
D	,, ,, ,, (Westley) *new g*	R. Burrell, Esq.....	5	1 0	226 ⅄	22·63	138
D	,, ,, ,, (Hengrave)	Mr. W. Nichol	5	1 2	91	19·25	100
	Darsham (Sibton Vicarage)	Rev. J. L. M. Moore...	5	1 0	86	20·77	...
D	Ixworth (Walsham-le-Willows)	Miss M. C. Martineau..	5	1 0	...	22·49	170
†	,, (Barningham)	Miss A. K. Lingwood...	8	1 0	136 T	16·99	...
D	Kessingland	Rev. E. L. Puxley.....	5	0 6	50?	17·88	179
D	Beccles (Sotterley Hall)	Col. St. J. Barne	5	0 10	...	19·19	172
D	,, (The Staith)	Clifford Smith, Esq. ...	5	4 0	...	17·09	140
D	Lowestoft (Bryn-y-Môr)	S. H. Miller, Esq.	5	1 0	86	17·47	164
	,, (,, ,,) .....M	,, ,, ,, ...	8	1 0	86	17·22	...
D	,, (The Clyffe, Corton)...	J. J. Colman, Esq., M.P.	5	1 0	62	18·07	154
	,, (Somerleyton Rect.)...	The Royal Meteor. Soc.	8	1 0	50	17·17	145
D	Fritton	H. Buxton, Esq.	8	0 10	40	18·04	138
D	Belton [Yarmouth]	Miss A. P. Howes	5	0 8	15 T	18·08	165
	NORFOLK.						
D	Scole Rectory	Rev. F. Page Roberts..	5	1 0	90	20·82	184
D	Diss	T. E. Amyot, Esq.....	5	1 0	96	21·54	160
D	Blo' Norton	Rev. Canon Du Port...	...	...	...	21·04	182
D	Harleston (Rushall Vicarage)	Rev. C. Gape	5	1 1	117 ⅄	19·80	158

DIVISION IV.—EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
NORFOLK—(*con.*)						
D Santon [Brandon]	Rev. A. M. Gathercole.	5	0 10	...	20·40	167
D†Geldeston [Beccles]	E. T. Dowson, Esq. ...	5	1 0	38 ⅄	18·09	177
,, [,,] M	,, ,, ,, ...	8	1 0	38 ⅄	17·48	...
D ,, [,,]	R. Dashwood, Esq.	5	1 0	49 T	18·21	155
Ellingham [,,]	H. Youngman, Esq. ...	5	3 0	...	18·12	...
D Wymondham	E B. Pomeroy, Esq.	8	1 3	118 ⅄	21·74	167
Watton	W. Martin, Esq. ...	5	2 0	166 T	21·02	...
D Hingham	T. W. Dobbs, Esq. ...	5	1 1	188	20·30	164
D Denver	Rev. Canon Du Port ...	8	1 0	80 ⅄	19·45	141
D Stoke Ferry (Wereham)	Miss Mason ...	5	6 0	66	19·54	138
D Cantley	W. S. Horn, Esq. ...	5	1 0	50	19·39	167
D Wymondham (Hethersett)	Mrs. Pinwill ...	6	1 3	163	23·21	184
Swaffham (Pickenham Hall)	H. Applewhaite Esq.	5	1 0	104 ⅄	22·67	172
Outwell Sluice	A. Lunn, Esq., C.E.	9	...	16	17·34	113
Yarmouth (Sailors' Home)	The Meteor. Council	8	4 0	12	19·46	187
,, (Market Place)	W. C. Steward, Esq.	5	1 0	...	19·56	172
D ,, (,, ,,)	,, ,, ,, ...	5	1 0	...	19·54	170
D ,, (Halvergate Hall)	H. S. Gillett, Esq.	5	3 3	48 ⅄	18·08	126
D Norwich (Postwick)	Miss Cross ...	5	1 1	5	22·53	163
D ,, (Carrow House)	J. J. Colman, Esq., M.P.	5	4 0	35 ⅄	23·44	123
† ,, (Thorpe High House)	W. Birkbeck, Esq. ...	5	1 0	137 T	22·93	166
D ,, (Essex Street)	F. Dix, Esq. ...	9	2 6	85 T	22·93	152
D ,, (Newmarket Road)	G. J. Holblack, Esq.	8	1 2	89	24·33	199
D ,, (Heigham)	J. R. Everitt, Esq. ...	5	3 2	37 ⅄	23·19	173
D ,, (,, Hall)	Dr. Compton ...	5	1 0	...	*23·02*	149
†Acle Rectory	Rev. R. W. Kennion...	8	0 9	40	21·20	131
,,	F. Cufaude, Esq. ...	5	0 6	51	19·43	...
D*Swaffham (London Street)	H. R. Heyhoe, Esq. ...	5	1 10	242 ⅄	21·76	148
D ,,	W. H. Plowright, Esq.	5	5 0	250 ⅄	21·40	154
,,	F. Everett, Esq.	4	2 6	...	19·67	118
D Costessey	Miss Culley	5	1 0	...	22·72	143
Honingham	Rev. Canon Du Port ..	...	...	...	20·35	...
D Sprowston (Oak Lodge)	T. Cozens Hardy, Esq.	5	1 0	101 ⅄	21·10	175
,,	Rev. Canon Du Port...	...	...	...	24·79	...
D South Walsham	J. E. T. Pollard, Esq.	5	3 3	22	19·91	158
East Dereham	G. H. Cooper, Esq. ...	8	3 0	161	19·51	119
Drayton	Miss Howell ...	5	1 2	50	22·45	...
D Swaffham (Dunham)	A. G. Copeman, Esq.	5	1 1	320	22·00	174
D Salhouse	Rev. T. F. Boddington	8	1 8	50	21·55	164
Wiggenhall (Outlet Syphons)	A. Lunn, Esq., C.E. ...	8	1 6	...	20·24	129
D TilneySt.Lawrence(Aylmer Hall)	W. B. Parsons, Esq.	8	1 0	9	18·51	146
D Terrington	J.T.Seccombe, Esq, M.D	5	1 0	15 ⅄	19·69	160
Felthorpe	Mrs. Bourchier ...	5	1 1	75	22·29	...
D Bylaugh Park Gardens	Mr. G. Beeton ...	5	1 0	130 T	22·30	165
D Reepham (Whitwell)	Rev. W. H. Freeman...	8	2 0	120	20·70	160
Cawston	Rev. T. H. Marsh ...	5	1 0	135 T	21·92	171
Aylsham (Woodgate)	B. J. W. Purdy, Esq. ..	5	1 0	100 T	23·04	160
D North Walsham (Dilham)	Rev. J. A. Lawrence...	5	0 8	...	20·17	183

DIVISION IV.—EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
NORFOLK—(*con.*)						
D North Walsham (Worstead) ...	R. Cross, Esq.	8	1 0	...	22·52	164
Hillington Rectory	Rev. H. Ffolkes.....	8	1 0	89 ⅄	22·38	167
D† ,, School	,, ,, ,, ...	5	3 6	94 ⅄	22·33	167
Fakenham (Pensthorpe)	W. Hamond, Esq.....	5	2 6	153	20·50	133
Dersingham Vicarage	Rev. E. W. Penny.....	5	1 0	85	20·73	...
D Fakenham (Cranmer Hall)	Sir L. Jones, Bart.....	5	1 0	144	27·72	169
D Cromer (Northrepps)..	R. H. J. Gurney, Esq..	5	0 4	...	20·37	145
Holt (Letheringsett Hall).....	W. Cozens Hardy, Esq.	8	1 0	...	19·00	119
D ,, Lodge.....	E. Knight, Esq.....	5	1 3	210	20·40	168
D ,, (Field Dalling)	J. H. Pearson, Esq. ...	5	1 0	...	17·64	143
Hunstanton Hall	Mr. Nisbet	11	3 8	60 ⅄	18·39	...
Holkham.....	J. Davidson, Esq.	12	4 0	43	17·92	...
Blakeney	Rev. Canon Du Port...	...	...	...	16·73	...

DIVISION V.—SOUTH WESTERN COUNTIES.

WILTS.						
D Larmer Grounds [Shaftesbury]...	General Pitt Rivers, FRS	5	3 0	500 T	32·02	154
D Rushmore [Shaftesbury]	,, ,, ,, ...	5	3 0	500 T	32·49	154
Landford.....	Mrs. Wigram	5	1 10	167 ⅄	24·36	140
D Donhead St. Mary (Charlton Ho.)	Col. G. Best	5	0 7	514	30·79	170
D Broad Chalke	H. P. Dixon, Esq.....	8	0 8	315	27·06	181
D†Salisbury (Alderbury)	Rev. R. S. Hutchings...	5	0 8	263 ⅄	23·10	157
† ,, (West Dean)	Rev. W. L. W. Eyre...	5	1 0	137 B	21·65	141
D ,, (Britford)	H. P. Dixon, Esq.	5	1 0	...	25·79	151
D† ,, (Wilton House).....	,, ,, ,, ...	8	0 5	180 ⅄	25·42	174
†Mere (Dews House)	J. Farley Rutter, Esq..	5	1 7	...	28·95	163
† ,, Vicarage	Rev. J. A. Lloyd	5	3 0	350	28·01	...
D† ,, Down	T. H. Baker, Esq.....	5	1 0	702 T	29·24	189
D†Maiden Bradley	Lord Percy St. Maur ..	8	1 6	626 T	32·72	182
†Warminster (Rye Hill).....	S. E. Jeffery, Esq.....	8	2 0	466 T	29·94	179
Salisbury Plain (Chitterne House)	R. Hayward, Esq.	11	4 0	319 T	24·04	162
D Warminster (Downside)	Mrs. Stent	8	2 3	393	28·72	171
D Amesbury (Figheldean)	G. Knowles, Esq.	5	1 0	260 T	22·59	144
Ludgershall	Rev. W. H. Awdry ...	8	0 8	422 ⅄	25·70	163
D ,, (Conholt Park)	H. P. Dixon, Esq.....	5	1 0	750 T	26·99	170
D ,, (Collingbourne Kingston)	Baldwin Latham Esq CE	5	1 0	470 ⅄	22·17	141
D Market Lavington.....	H. P. Dixon, Esq.	...	...	...	27·84	146
D Trowbridge (Water Works, Biss)	W.W. Gray, Esq., C.E.	5	1 0	311	27·60	129
,, (Steeple Ashton Vic.)	H. P. Dixon, Esq.	5	1 0	240 T	25·47	174
D ,, (Wingfield).....	T. H. Clark, Esq.	5	1 0	190 T	23·83	167
D ,, (Rodney House) ...	W. J. Mann, Esq.....	5	1 1	140	22·83	158
Bradford	H. P. Dixon, Esq.	...	...	...	23·27	176
D ,, (Holt)	,, ,, ,, ...	...	...	...	25·26	189
D Devizes (Southgate House)	Miss Cunnington	8	1 0	436 T	26·72	155
D ,, (Wilts Co. Asylum) ...	Dr. Ireland Bowes.....	8	2 3	385 ⅄	26·18	172
D Buttermere	H. P. Dixon, Esq.	5	4 9	...	26·24	177

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	WILTS—(*con.*)						
	Alton Barnes Rectory	Rev. W. Humphreys	5	1 1	434	25·62	153
	Burbage (Wolfhall)	H. P. Dixon, Esq.	8	1 0	546	24·97	135
D	Shalbourne	,, ,, ,,	5	1 0	...	25·80	158
D	Bishop's Cannings	Rev. C. W. Hony	5	1 0	446 ⅄	27·97	174
D	Devizes (Shepherd's Shore)	H. P. Dixon, Esq.	5	1 6	555	27·37	169
D	Chippenham (Lacock)	Miss Awdry	5	0 11	250	26·35	184
D	Marlborough (Preshute House)	H. P. Dixon, Esq.	...	...	...	29·01	175
	,,	The Royal Meteor. Soc.	5	1 0	424	26·28	180
D	,, (Mildenhall)	late Rev. C. Soames	5	1 0	456	24·93	148
D	Corsham	H. P. Dixon, Esq.	5	1 0	350?	24·77	156
D	Calne (High Street)	Mr. H. Wilkins	5	3 6	244	28·24	187
D	,, (Compton Bassett)	Mr. W. A. Cook	8	1 0	395 T	28·55	169
	Yatesbury	Rev. E. D. Guillebaud.	5	3 6	564 ⅄	28·50	...
D	Ramsbury	H. P. Dixon, Esq.	5	1 0	411	24·21	163
D	Ogbourne Maizy	,, ,, ,,	5	1 0	...	26·89	141
D	Broad Hinton	Rev. Vere Awdry	5	1 1	631 T	28·68	183
D	Wootton Bassett	H. P. Dixon, Esq.	5	1 0	...	26·90	173
D†	Swindon, New	H. J. Southwell, Esq.	8	0 11	378	22·82	171
	,, (Pen Hill)	H. Arkell, Esq.	5	0 10	400	21·81	147
D	Malmesbury (The Priory)	A. W. Chubb, Esq.	5	2 6	...	24·53	142
D	,, (Charlton Cott.)	H. P. Dixon, Esq.	...	1 0	...	25·19	133
D	,, (,, Park)	Countess of Suffolk	8	0 11	...	22·19	160
	Highworth (Hannington Hall)	A.D.Hussey Freke,Esq.	5	1 0	400 T	19·58	146
	DORSET.						
D	Portland (The Manse)	Rev. W. R. Waugh	5	1 6	10	20·33	130
	Weymouth (Wyke Regis)	Mrs. Pretor	5	0 9	80 B	24·48	132
	Corfe Castle (Smedmore)	Col. G. P. Mansel	5	0 8	130	19·84?	...
	Swanage (The Bank)	J. Andrews, Esq.	5	1 0	8	24·72	122
	,, (Gordon Villas)	F. A. Burt, Esq.	5	3 0	65 T	23·47	126
	,,	Rev. H. Pix	5	2 0	60	24·71	139
	Weymouth	The Royal Meteor. Soc.	5	1 0	79	22·73	142
D	,, (Langton Herring)	Rev. C. H. Gosset	8	1 0	158 ⅄	24·06	143
	Corfe Castle (Creech Grange)	T. Tyler, Esq.	5	1 2	200	28·13	...
D	,, ,, (Furzebrook)	L. W. Pike, Esq.	5	1 2	147 T	28·00	144
D	Portisham	W. Symes, Esq.	5	1 3	...	25·33	141
D	Winterbourne Steepleton	H. Stilwell, Esq.	8	1 0	316 ⅄	30·81	151
D	Wareham (Castle Gardens)	S. W. Bennett, Esq.	5	2 6	18	25·18	146
	,, (Binnegar Hall)	O. C. Farrer, Esq.	5	1 0	65	26·02	...
	Poole (West Street)	F. Styring, Esq.	5	1 2	6	24·45	142
D	,, (The Yarrells)	,, ,,	5	1 1	60 T	25·46	137
	,, (Hamworthy)	J. M. Henderson, Esq.	5	1 6	12	23·34	111
D	,, (Parkstone)	R. H. Barnes, Esq.	5	0 11	198 ⅄	28·79	145
D	Bridport (Portville)	H. Gordon, Esq., C.E.	5	1 0	15	26·41	132
D	,, (Coneygar)	,, ,, ,,	5	1 0	110	25·51	132
	Bere Regis Vicarage	Rev. W. Farrer	10	4 6	170 B	26·69	...
	,, ,, (Bloxworth Rectory)	RevO.P.CambridgeFRS	8	1 6	205	27·05	113
D	,, ,, (,, House)	Col. Cambridge	5	2 0	100	26·15	117

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter.	Height Above Ground ft.	Height Above Ground in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which .01 or more fell.
DORSET—(*con.*)							
D Maiden Newton (Cattistock Lodge)	H. Hamilton Palairet Esq	5	1	0	350	32·40	162
D Beaminster Vicarage	Rev. A. A Leonard ...	5	1	0	216 T	28·35	163
D Blandford (Whatcombe)	J. Mansel-Pleydell, Esq.	5	0	10	270 ⅄	29·57	146
Cerne Abbas (Melbury)	Mr. R. Rintoul	5	1	4	500	32·51	108
D Beaminster (Chedington)	Miss Creed	5	1	6	604 ⅄	34·60	162
D* Wimborne Minster (Chalbury)	Rev. G. H. Billington..	5	2	0	338 ⅄	24·04	138
Hazelbury Bryan Rectory	Rev. Canon Wheeler...	5	1	0	305 ⅄	37·42	146
D Verwood	W. R. Fryer, Esq.	5	1	6	...	24·43	134
D Sturminster Newton (Riverside)	A. R. Hallett, Esq. ...	5	1	0	200	25·28	127
D Shaftesbury	H. P. Dixon, Esq. ...	5	1	4	722 ⅄	25·47	144
D Gillingham	S. H. Stephens, Esq....	5	1	2	244 T	27·90	164
DEVON.							
Salcombe (Prawle Point)	The Meteor. Council ...	8	1	9	350	24·50	161
D ,, (Shadycombe)	Mr. T. Langmead	8	1	2	20	29·08	133
D ,, (The Knoll)	late Dr. Twining	5	1	0	106 T	30·69	140
South Huish	W. Balkwill, Esq.	5	5	6	220 T	25·13	..
D Revelstoke (Membland)	Mr. G. Baker	5	1	0	180 T	32·99	129
D Dittisham (Chipton)	Mr. H. Bond	5	1	6	342	34·93	141
D Plymouth (The Hoe)	H. V. Prigg, Esq., C.E.	8	0	10	117 ⅄	30·92	161
D ,, (Freedom Field)	,, ,, ,, ...	8	0	10	208 ⅄	32·25	151
,, (Drake's Reservoir)	E. Sandeman, Esq., C.E.	5	1	0	149 ⅄	31·07	160
D* Devonport (Rowdens Res.)	H. Francis, Esq., C.E.	5	1	0	201 ⅄	28·79	179
D Ivybridge (Langham Hill)	Miss Glanville	5	1	0	400 T	39·78	167
Brixham (Lupton)	The late Mr. J. Gibson.	5	1	6	220 T	28·28	...
Plympton (Hemerdon) ...*garden*	Rev. G. L. Woolcombe	5	4	0	360	38·42	...
,, (,,)*tennis court*	,, ,, ,, ...	5	1	0	365	41·62	...
Totnes (Pomeroy House)	D. A. Fraser, Esq., M.D.	5	1	6	70	35·09	...
D Paignton (The College)	Rev. A. F. Claydon ...	6	1	0	10?	30·18	168
,, (Sarsden Lodge)	Miss M. Searle	5	0	5	12	28·89	...
Bere Ferrers	Rev. F. T. W. Wintle.	5	1	0	100	34·97	167
Bickley (Roborough Reservoir)	E. Sandeman, Esq., C.E.	5	1	0	550 ⅄	40·31	184
D Torquay (Cary Green)	C. Shapley, Esq.	5	1	0	12	25·83	145
D ,, (Grey's Lodge)	Col. J. R. Currie	5	1	0	260	26·98	172
D ,, (Watcombe Park)	Col. C. Ichabod Wright	5	1	0	483 ⅄	27·13	160
†Lee Moor Clay Works	T. Martin, Esq.	8	1	6	900	52·43	...
Buckfastleigh (Bossel Park)	J. Hamlyn, Esq.	5	1	0	250	46·88	143
D† Sheepstor Vicarage	Rev. C. H. Crooke.	5	0	7	730 ⅄	44·00	154
† ,, (Red Stone)	E. Sandeman, Esq., C.E.	5	1	0	760 ⅄	46·45	176
† ,, (Head Weir)	,, ,, ,, ...	5	1	0	690 T	47·71	171
D† Walkhampton (Lowery)	H. Francis, Esq., C.E.	5	1	0	890 T	44·55	169
†Dartmoor (Deancombe Farm)	E. Sandeman, Esq., C.E.	5	1	0	830 ⅄	48·41	174
† ,, (Leather Tor Farm)	,, ,, ,,	5	1	0	910 ⅄	51·57	170
† ,, (Leeden Tor)	,, ,, ,,	5	1	0	1270 ⅄	44·48	...
Abbotskerswell (Court Grange)	Mrs. Marcus Hare	5	1	0	130 B	29·16	118
D Ashburton (Holne Vic.)	Rev. J. Gill	5	1	6	650	49·70	179
D† ,, (Druid House)	Fabyan Amery, Esq.	5	1	0	572 T	42·51	159
D Kingsteignton (Teignbridge Ho.)	F. H. Plumptre, Esq...	5	1	2	27 ⅄	27·13	141

DIVISION V.—SOUTH WESTERN COUNTIES—*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which '01 or more fell.
			ft. in.	feet.	inches.	
DEVON - (*con.*)						
Teignmouth (Woodlands)	W. B. Harris, Esq.	8	1 2	98 T	23·79	146
,, (Reservoir)	W. C. Lake, Esq., M.D.	5	1 0	138	27·70	136
D ,, (Bonnicliff)	Capt. J. Horner	5	1 0	260 T	24·54	147
D†Tavistock (Public Library)	Mr. R. Westington	8	20 0	283 T	39·26	191
D ,, (West Street)	H. A. Gibson, Esq	5	1 1	272 T	44·07	203
Princetown	Royal Meteor. Soc.	5	1 0	1360	63·27	193
,, (North Hessary Tor) M	E. Sandeman, Esq., C.E.	5	1 0	...	51·18	...
D†Ilsington (Middlecott House)	Alfred Lyon, Esq.	9	3 6	649 T	39·27	135
Princetown (Cowsic Valley)	H. Francis, Esq., C.E.	8	1 6	1352 ⊼	67·55	..
D Chudleigh (Ideford)	Rev. G. J. Ford	4	1 0	300 ⊼	26·03	167
Bovey Tracey (Little Bradley)	Miss C. N. Phillpotts	5	1 0	125	28·23	137
D ,, ,, (Colehays)	Mr. E. E. Underdown.	5	1 3	415 T	38·63	161
†Milton Abbot (Endsleigh)	Mr. F. Yole	5	1 0	180 T	36·90	...
D Dawlish (Mamhead Rect.)	Rev. W. C. Plenderleath	5	1 0	467 ⊼	29·66	182
D Chudleigh (Torquay Waterworks)	T. S. Weeks, Esq., C.E.	8	4 0	718 ⊼	34·29	182
,, (Trusham)	Rev. O. H Cary	5	1 0	322 T	29·45	157
D Budleigh Salterton (Ravenshaw)	Col. Carlile	6	0 6	50	25·16	128
D ,, ,, (Bickton)	Mr. Mayne	5	1 0	90	26·72	151
D Kenton (Southtown House)	Major Courtenay	8	2 6	56 ⊼	26·24	145
Coryton (Lew Down)	T. M. Symons, Esq.	5	4 0	445	45·68	167
D Polapit Tamar [Launceston]	R. C. Coode, Esq.	5	2 9	315 ⊼	33·01	199
D Christow (Torquay W. W.)	T. S. Weeks, Esq., C.E.	8	1 0	842 ⊼	33·42	192
D Chagford (Batworthy)	F. N. Budd, Esq.	8	1 0	1282 ⊼	54·35	172
†Sidmouth (Sidmount)	The Royal Meteor. Soc.	5	1 0	149 ⊼	25·51	185
D*Rousdon [Lyme Regis]	C. E. Peek, Esq.	5	1 0	516 ⊼	26·52	156
* ,, [,, ,,] M	,, ,, ,,	3	1 0	516 ⊼	24·96	...
D†Clevelands [Lyme Regis]	Mr. H. Munro	5	1 11	465 ⊼	26·23	134
D Exeter (Devon & Exet. Inst.)	A. R. Allinson, Esq.	6	13 7	155 ⊼	*24·42*	139
D† ,, (Lyndhurst Road)	Miss M. E. Clark	5	1 0	140	24·24	145
D† ,, (Manston Terrace)	Miss Dymond	5	1 0	166 ⊼	24·05	162
†Okehampton (Oaklands)	W. H. Holley, Esq.	5	1 0	521 T	41·66	...
Axminster (Great Trill)	F. J. Sparks, Esq.	5	1 0	300 T	25·12	121
†Exeter (Brampford Speke) *new g.*	Miss Gamlen	5	1 0	114 T	26·65	163
D Axminster (South Street)	Mr. S. Griffin	5	3 6	138 T	28·13	133
D Honiton (Ivedon)	G. E. Stanley, Esq.	5	1 0	400 T	31·15	175
Hatherleigh (Broomford Manor)	Mr. Hawking	5	1 4	484 ⊼	37·62	120
,, (Ash House)	J. S. Osbourne, Esq.	5	1 0	332 ⊼	33·79	124
D Cullompton	T. Turner, Esq.	5	1 0	202 ⊼	29·91	170
D Petrockstow (Heanton Satchville)	Mr. A. Eames	5	1 0	332 T	34·20	178
D Tiverton (Broomhill)	Mrs. Dickinson	5	1 0	380	36·51	171
D Witheridge (Bradford Cottage)	Rev. J. H Thompson.	5	1 0	600	38·91	195
D Torrington (Stevenstone)	Mr. W. Gillies	5	1 0	...	37·10	159
,, (Little Silver)	F. Lipscomb, Esq.	5	1 0	395	37·53	171
D Tiverton (Cove House)	Miss North Row	...	...	460 T	34·04	103
D Bampton (Huntsham)	Col. Troyte	8	1 0	640	45·05	183
D South Molton (Rose Ash)	Mrs. Tanner Davy	8	0 6	766 ⊼	38·24	149
D Hartland Abbey	Mr. G. Sleep	5	1 6	222 T	36·69	149
D South Molton (East Street)	N.C. Hatherly, Esq. M.D	5	1 0	430 B	42·11	188

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which .01 or more fell
DEVON—(*con.*)							
South Molton (Castle Hill)	Mr. R. Nicholas	12	3	9	320 T	43·28	180
,, ,, (,, ,, School)	The Royal Meteor. Soc.	8	1	0	363	42·16	201
D Bideford (Water Works)	Baldwin Latham Esq CE	5	1	0	335 ⅄	35·78	143
*† ,, (Horwood)	Rev. J. Dene	5	1	0	288 T	38·26	166
D ,, (St. Helen's, Northam)	Miss L. Bowles	5	0	10	67 T	36·57	194
D*† ,, (Northam)	Rev. M. D. Churchward	5	1	0	173 ⅄	35·44	159
D Barnstaple Athenæum	T. Wainwright, Esq.	8	1	0	31 ⅄	32·02	145
D ,, (Pilton)	Miss Hibbert	5	1	0	73	37·95	172
D ,, (Arlington Court)	Lady Chichester	5	1	1	613 B	51·15	179
D Woolacombe	E. Henshall, Esq., C.E.	5	1	0	60 ⅄	28·96	147
Lynton (Parracombe)	Rev. J. F. Chanter	5	3	0	795 T	44·60	165
†Ilfracombe Hotel	The Royal Meteor. Soc.	12	9	0	35	30·08	155
,, ,, ... *new gauge*	,, ,, ,,	5	1	0	24	37·11	155
†Lynton (Lee Abbey)	C. F. Bailey, Esq.	5	0	6	340 T	37·21	...
D Lynmouth (Glenthorne)	W. Halliday, Esq.	5	0	9	93	41·06	154
CORNWALL.							
Penzance (Penlee)	J. Branwell, Esq.	5	1	0	71 T	33·70	179
,, (Trevean)	Major Ross	5	1	6	90 B	35·01	170
D ,, (St. Clare)	Rev. Preben. Hedgeland	5	1	0	213 T	32·91	216
Marazion	T. W. Field, Esq.	5	2	0	30 ?	30·65	164
D Falmouth (New Observatory)	E. Kitto, Esq.	11	2	0	169 T	35 09	167
,, (,, ,,)	,, ,,	8	1	9	169 T	35·29	160
Morvah (Bosporthenis)	Mr. J. H. Thomas	5	3	6	600 ?	30·25	...
D Falmouth (Carclew)	Mr. J. Simmons	5	0	9	...	36·37	145
D St. Ives (Phillack Rectory)	Rev. Canon Hockin	5	1	0	70	30·66	161
D Redruth (Trevince)	E. B. Beauchamp, Esq.	8	0	8	240 T	34·81	171
D ,, (Trewirgie)	A. H. Jenkin, Esq.	5	1	0	400 T	36·09	178
D ,, (Tehidy Park)	Mr. A. Mitchell	8	1	1	287 ⅄	34·28	167
D Truro (St. Michael Penkevil)	Rev. A. R. Tomlinson	5	2	0	230 T	31·29	170
† ,, (Royal Institution)	R. A. Greg, Esq.	5	40	0	56 ⅄	29·05	172
D Probus (Lamellyn)	H. Tresawna, Esq.	5	0	6	...	32·09	137
St. Agnes	Mr. Opie	5	1	3	278 B	28·54	150
D†*St Austell (Trevarna)	W. Coode, Esq.	5	0	6	300 ⅄	34·01	185
Par Station (Penellick)	W. E. Geach, Esq.	5	0	9	240 T	25·48	...
D Empacombe [Devonport]	J. Sandercock, Esq.	5	0	7	20	29·78	164
D Cremyll [,,]	Mr. W. E. Marchant	5	18	0	25	29·36	172
D St. John's [,,]	Rev. J. H. Kirwan	5	1	0	20	31·14	146
D Lostwithiel (Lanwithan)	Miss Foster	10	1	0	80	33·87	168
D Newquay	A. Hardwick, Esq., M.D.	5	1	0	130	29·59	175
D†Liskeard (Dean Terrace)	S. W. Jenkin, Esq., C.E.	5	1	1	375 ⅄	39·16	191
D†Saltash (Pentillie Castle)	Mr. A. W. Cove	5	1	6	150 B	39·70	169
D†Bodmin (Lanhydrock)	Rev. Prebendary Every	5	1	0	390	38·26	203
Callington (Hingston Down)	Mr. Wadge	5	3	0	850 T	42·68	168
†Launceston (Altarnon)	Rev. A. H. Malan	5	1	0	570 B	52·42	209
Bude	J. Arthur, Esq.	5	1	0	16 B	30·53	.
D Stratton (Trelana, Poughill)	Col. Field	5	1	0	200 T	34·64	190

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
	SOMERSET.						
	Chard (Cricket St. Thomas)	RtHn. ViscountBridport	5	1 0	444	33·53	126
D	Crewkerne (Bincombe House)	F. J. Sparks, Esq.	5	1 2	250 T	26·62	119
D	Yeovil (West Coker)	Major Aldworth	5	1 0	260 T	26·72	185
D	,, (Hendford)	J. Curtis, Esq.	5	1 0	132 T	26·13	136
D	Ilminster (White Lackington)	Rev. Prebendry Gowring	5	1 0	136 ⅄	27·78	165
D	,, (Ilton Vicarage)	Rev. R. B. Poole	5	1 0	100 ⅄	25·29	179
D	South Petherton (Bridge)	W. Blake, Esq.	8	0 8	110 T	24·14	164
D	Wellington (Sunnyside)	W. Elworthy, Esq.	5	1 0	...	32·04	176
D	,, (The Avenue)	F. J. Burnett, Esq.	5	0 10	220 ?	28·65	165
D	Temple Combe (Stowell Rect.)	Rev. H. J. Poole	8	1 0	376 ⅄	27·68	192
D	Taunton (Claremont)	E. Ball, Esq.	8	1 2	80 B	24·24	168
	,,	The Royal Meteor. Soc.	5	1 0	80	24·47	166
D	,, (Norton Fitzwarren)	H. Ruddle, Esq.	5	1 0	140	27·98	127
D	Langport (Huish Episcopi)	J. Kelway, Junr., Esq.	8	1 0	74 T	21·90	147
D	Milverton (The Lodge)	Miss Bere	5	1 0	198	32·72	157
D	Wincanton	Rev. W. Farrer	8	1 0	240	26 87	173
	Cothelston House	C. E. J. Esdaile, Esq.	5	1 0	430	34·01	178
D	Glastonbury (Street)	W. S. Clark, Esq.	8	0 6	100	22·18	168
	,, (High Street)	J. Spire, Esq.	8	7 0	94 T	25·36	165
D	,, (Ynyswytryn)	Major Swayne	5	1 8	245 T	25·43	161
D	,, (Magdalene House)	J. G. L. Bulleid, Esq.	5	1 6	52 T	24·09	153
	Bridgwater (Nurseries)	H. Corder, Esq.	5	0 6	...	26·21	161
D	,, (Ashford)	F. Parr, Esq.	...	...	...	28·86	158
D	Dunster (Knowle)	Worsley Battersby, Esq.	5	1 4	269 T	34·31	155
D	Cranmore (Cranmore Hall)	Sir R. Paget, Bt., M.P.	8	1 0	600	33·24	184
D	Wells	R. J. Manning, Esq.	5	44 0	181 T	28·85	168
D	,, (*Garden*)	,, ,, ,,	5	1 3	139 T	29·02	168
D	Frome (Mells Rectory)	Rev. G. Horner	5	1 0	344 ⅄	29·47	176
D	,, (Rock House, Mells)	W. A. Fussell, Esq.	7	1 8	326 ⅄	30·39	167
	Radstock (Downside)	Rev. T. L. Almond	8	1 0	596	34·37	167
	Chewton Mendip (The Priory)	Mr. J. Batt	5	1 5	550 T	37·27	167
	Ston Easton	H. E. Hippisley, Esq.	5	3 0	480 ⅄	32·18	169
	E. Harptree (Sherborne Reservoir)	Bristol Water Works	5	1 0	338 T	31·70	164
D	,, (Harptree Court)	W. W. Kettlewell, Esq.	5	1 0	346 ⅄	36·86	173
D	Axbridge (Loxton)	L. H. Tiarks, Esq.	8	1 0	120	30·50	155
	,, (Winscombe)	Rev. R. F. Follett	8	1 0	200 T	28·26	125
	Radstock (Paulton House)	H. L. L. Macdonald, Esq.	5	1 0	384 ⅄	29·09	168
D	Pensford (Sutton Court)	Sir E. Strachey, Bt.	8	1 0	...	32·84	172
D†	Bath (Freshford)	W. Gee, Esq.	5	0 9	163 T	26·60	158
	Weston-super-Mare (High St.)	The Royal Meteor. Soc.	5	1 0	20	27·79	150
D	,, ,, ,, (Worle Vic.)	Rev. W. F. Rose	5	1 0	16	30·05	161
	Wrington (The Rectory)	Rev. G. M. Ashdown	5	5 0	68	36·21	...
D	,, (West Hay)	Gen. Harrison	5	2 0	95	31·15	159
	Chew Magna	Bristol Water Works	5	1 0	160 T	34·54	170
D†	Bath (Royal Institution)	W. J. Helps, Esq.	6	8 0	75	25·62	150
D	,, (Ensleigh, Lansdowne)	C. H. Weston, Esq.	8	1 0	740 ⅄	28 94	174
D	,, (Charlcombe)	C. Gilby, Esq., C.E.	8	2 0	325 T	27·96	158
D	Batheaston	Col. Linley Blathwayt.	5	1 0	166 ⅄	27·10	165

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
SOMERSET—(*con.*)						
D Batheaston Reservoir	C. Gilby, Esq., C.E.	6	2 0	248 ⇑	24·69	171
Yatton (Chelvey)	Bristol Water Works	7	0 6	...	30·18	134
Barrow Gurney Reservoir	,, ,, ,,	5	1 0	320 ↑	32·17	151
D Long Ashton Estate Office	T. Dyke, Esq.	8	1 0	134	30·02	163
D Flax Bourton (Tyntesfield)	A. Gibbs, Esq.	5	1 7	320	28·02	167
Clevedon (Pembroke Villa)	E. Sturge, Esq.	5	2 0	90 ↑	27·67	171
Bristol (Coronation Road)	H. C. Martin, Esq.	5	0 10	50	26·41	...
DIVISION VI.—WEST MIDLAND COUNTIES.						
GLOUCESTER.						
D Monkswood Reservoir [Bath]	C. Gilby, Esq., C.E.	6	2 0	363	28·27	175
D Bristol Docks (Underfall Yard)	J.M.McCurrich,Esq,CE	8	19 6	45	25·73	150
,, (Small Street)	Bristol Water Works	12	33 10	52	25·02	138
D Clifton (Royal York Crescent)	Miss Bridge	5	8 2	226 ↑	27·26	179
D ,, (Cecil Road)	Miss Hooper	5	1 5	230	27·48	158
D ,, (Pembroke Road)	R. F. Sturge, Esq.	8	1 0	215	28·42	157
D ,, (College)	D. Rintoul, Esq.	8	1 2	230	29·30	160
Bristol (Montpelier)	J. Harvey Jones, Esq.	5	1 0	93 ↑	28·82	...
,, (Redland Green)	T. D. Sibly, Esq.	8	1 3	282	27·79	170
D ,, (The Grove, Fishponds)	H. H. Harding, Esq.	5	1 0	160 ↑	27·18	168
,, (Cote House)	H. St. V. Ames, Esq.	8	1 3	243 ⇑	29·27	...
Pucklechurch	Rev. S. G. Gillum	5	0 10	370 ↑	29·40	160
D Filton	F. W. Gayner, Esq.	5	1 0	266	25·91	148
D ChippingSodbury(FramptonCotl)	J. Marsh, Esq.	5	1 0	180 ⇑	26·98	150
D ,, ,, (StanshawesCt)	R. N. Hooper, Esq.	5	1 3	280 ⇑	27·90	158
,, ,, (Ridge House)	Mrs. Burges	5	1 4	357	27·29	...
D Almondsbury	Rev. C. O. Miles	5	2 0	144	26·93	142
D Wickwar Rectory	Rev. R. J. Lyon	5	2 0	260 ⇑	25·51	156
D Thornbury (Prospect House)	T. H. Taylor, Esq.	5	2 3	150 ↑	27·71	198
Alderley	Gen. Hale	5	1 0	300 ↑	28·08	...
Tortworth Court	Mr. T. Shingles	8	1 0	264	22·58	142
D Dennel Hill [Chepstow]	Mrs. Cowburn	8	1 0	573 ⇑	25·95	117
D Fairford (Kempsford)	A. T. Iles, Esq.	5	1 0	...	18·36	146
D ,, (Horcott)	R. A. Iles, Esq.	5	0 8	...	18·37	120
D Berkeley (Sharpness New Docks)	F. A. Jones, Esq., C.E.	8	3 9	50	23·42	139
D Lechlade	T. Arkell, Esq.	5	0 9	253	19·76	144
D Amberley (Highlands)	Mrs. Blackwell	8	0 10	550 ↑	23·41	114
D Lydney (Clanna)	Capt. Marling	5	1 0	260	27·40	146
,,	G.W.Keeling,Esq.C.E.	10	5 0	87	21·08	108
D ,, (Priors Mesne)	H. Cook, Esq., M.D.	5	1 0	500 ↑	26·91	146
D Cirencester (Claremont Place)	R. Gorton, Esq.	8	1 0	356 ↑	22·40	165
,, (,, ,,)	,, ,, ,,	8	2 0	357 ↑	22·56	165
,, (,, ,,)	,, ,, ,,	8	0 6	356 ↑	22·48	165
,, (,, ,,)	,, ,, ,,	8	11 0	366 ↑	23·11	165
D ,, (Royal Agricultural Coll.)	C. C. Duncan, Esq.	5	1 0	443 ⇑	20·71	156
D ,, (Further Barton)	Miss Brown	5	1 0	425	22·50	168
D Stroud (Stanley Park)	W.J.Paley Marling,Esq	8	1 0	365	23·56	151

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground.	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
GLOUCESTER—(*con.*)						
D Stroud (The Acre)	P. Witchell, Esq.	5	1 0	300	21·87	131
D ,, (Upfield)	Miss Stanton	5	1 0	226 ⊼	22·16	167
Stonehouse (Haywardsfield)	F. A. Sibly, Esq.	5	0 10	130	22·18	152
D Fairford (Hatherop Rectory)	Rev. R. P. Davies	8	1 3	411 ⊼	19·69	129
D Whitminster	F. A. Jones, Esq., C.E.	5	1 0	32	19·56	139
D Coleford (The Coombs)	I. Trotter, Esq.	5	1 0	660	32·98	182
Newnham-on-Severn	D. J. Wintle, Esq.	5	0 10	56 ⊼	24·37	...
D Coleford (Staunton Rectory)	Mrs. Jay Jones	5	0 8	726 T	28·82	173
D Westbury-on-Severn (Chaxhill)	H. S. Grant, Esq.	5	1 0	120 T	21·98	155
D Great Barrington	H. J. Barrett, Esq.	5	1 6	430 T	20·33	119
Northleach (Yanworth)	T. Arkell, Esq.	5	1 0	...	22·36	...
,, (Sherborne House)	Mr. Scott	5	1 0	405	22·43	136
D* ,, (Hampnett Rectory)	Rev. W. Wiggin	5	1 0	653 ⊼	21·93	160
Gloucester (Quedgeley House)	W. G. Robinson, Esq.	5	1 0	65 T	21·53	158
D ,, (Birdlip Hill)	A. S. Helps, Esq.	5	1 0	800 B	21·32	162
D ,, (Witcombe Res.)	R. Read, Esq., C.E.	8	3 0	297 ⊼	21·31	147
D Mitcheldean (Blaisdon)	P. Stubs, Esq.	5	1 0	117 ⊼	22·08	170
,, (,,) M	,, ,,	5	1 0	117 ⊼	22·00	...
D Gloucester (Hempsted)	F. A. Jones, Esq., C.E.	5	1 6	70 ⊼	20·23	165
D ,, (Llanthony Lock)	E.D.Marten, Esq., C.E.	5	1 2	39 ⊼	16·97	141
D ,, (Lower Barton Street)	W. P. Brown, Esq.	5	1 0	65 ⊼	19·20	152
D ,, (Churcham)	L. H. Hall, Esq.	5	2 1	90	21·56	138
,, (Wotton Hill)	A. Stephens, Esq.	5	1 0	80 T	19·23	...
D ,, (,, Asylum)	Dr Johnson	8	0 9	90 ⊼	19·65	168
D Mitcheldean (Edge Hill House)	W. H. M. Phillips, Esq.	5	1 0	725 ⊼	25·10	156
D Cheltenham (Dowdeswell)	J. Hall, Esq., C.E.	5	1 0	375	23·18	144
D† Gloucester (Maisemore Lock)	E.D. Marten, Esq., C.E.	5	1 1	39 ⊼	17·10	166
D Bourton-on-the-Water	E. W. Kendall, Esq.	5	1 0	434 T	23·63	151
D Cheltenham (Battledown)	Sir Brook Kay, Bt.	5	0 8	393 ⊼	19·43	159
D ,, (Northfield)	J. Hall, Esq., C.E.	8	5 0	637 ⊼	17·15	147
D ,, (Hewletts Res.)	,, ,, ,,	8	1 6	417 ⊼	20·11	150
D ,, (Sandford)	,, ,, ,,	5	3 6	210	19·11	145
D ,, (NauntonPk.Villas)	M.LlewellynEvans,Esq	5	0 9	250	19·97	175
D ,, (Heath Lodge)	Rev. M. A. Smelt	8	1 0	206	20·12	167
,, (Selsley Lawn)	W.McLandsboro'EsqCE	5	4 0	236	18·42	...
D ,, (Southam Villa)	R. Tyrer, Esq.	5	1 0	184 ⊼	19·91	169
,, (,, ,,) M	,, ,,	5	1 0	184 ⊼	18·72	...
Moreton-in-Marsh(Longborough)	W. Arkell, Esq.	5	0 9	...	23·98	142
D ,, ,, (,,)*new*	,, ,, ,,	5	1 0	...	23·97	142
D† Tewkesbury (Upper Lode)	E.D. Marten, Esq., C.E.	5	1 0	41 ⊼	16·96	131
D ,,	J. Hall, Esq., C.E.	5	0 9	44	15·81	155
D ,, (Beckford)	F. Slade, Esq., C.E.	8	1 0	120 ⊼	18·50	165
HEREFORD.						
Wyastone Leys [Monmouth]	J. M. Bannerman, Esq.	6	1 0	200 T	25·00	147
D Ross (Croome Hall)	W. E. Hancock, Esq.	9	2 0	284 ⊼	20·77	127
D† ,, (The Graig)	H. Southall, Esq.	5	1 0	213 ⊼	20·13	165
D Upton Bishop (The Baches)	W. Hogarth, Esq.	5	1 0	...	18·80	103

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground.	Height above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell
				ft. in.	feet.	inches.	
	HEREFORD—(*con.*)						
	Ross (Perrystone Court)	Mr. T. Greenway	5	1 3	...	*18·59*	128
	Much Dewchurch (Bryngwyn)	J. Rankin, Esq., M.P.	5	0 9	416 T	22·75	151
D	Much Marcle (Homme House)	Mr. J. Maxton	5	0 11	280 T	19·58	157
D	,, ,, (Caerswall)	T. Charles, Esq.	5	1 0	423 B	21·17	150
D	Fownhope (Morney Cross)	O. E. Cresswell, Esq.	5	1 5	...	20·38	125
D	Ledbury (Orchardleigh)	M. A. Wood, Esq.	5	3 0	160	18·22	140
D	,, (Underdown)	S. H. Bickham, Esq.	5	1 0	307 ⅄	19·42	168
	,, (,,) ..... M	,, ,, ,, ...	5	1 0	306 ⅄	18·73	...
	,, (Putley Court)	J. Riley, Esq.	5	1 0	290	20·05	140
D	Hereford (Breinton Court)	H. A. Wadworth, Esq.	5	1 3	236	19·27	145
	,,	E. Anthony, junr., Esq.	...	...	184	22·92	149
D	,,	Rev. Canon Phillott	5	1 1	182	19·66	129
	,, (St. Michael's Priory)	*Reg. General's Returns*	...	...	291	20·33	154
D	Ledbury (Canon Frome Vic.)	Rev. M. Hopton	8	1 3	252 T	20·73	158
	Hereford (Brinsop Vic.)	Rev. Preb. Elliot	5	1 0	300 T	19·91	139
D	,, (Burghill) ..... No. 3	T.A.Chapman, Esq.M.D	5	1 0	275	19·14	154
	,, (,,) ..... No. 4	,, ,, ,, ...	5	1 0	275	18·90	154
	Bodenham Vicarage	Rev. H. C. Sturges	5	1 0	260 T	20·12	...
D	Hope-u-Dinmore (Hampton Ct.)	J. H. Arkwright, Esq.	8	1 2	212 B	21·36	151
D	Weobley (Dilwyn)	T. L. Hall, Esq., M.D.	5	0 8	290 T	22·40	156
D	Kington (Lynhales)	S. Robinson, Esq.	8	1 0	...	27·38	169
	,, (Evancoyd)	E. G. Mynors, Esq.	...	...	...	25·22	118
D	Pembridge (Marston)	H. Langston, Esq.	5	1 5	347 ⅄	24·26	159
D	Bromyard (Buckenhill)	R. Phipps, Esq.	8	1 9	...	21·73	133
D	Leominster (Farm)	Mrs. Southall	5	1 6	245	24·95	160
D	Kington (Eywood)	RtHonLd.Ormathwaite	8	12 0	600 T	26·25	145
D	Stoke Bliss	Rev. G. E. Alexander.	5	1 0	420 T	24·30	154
	SHROPSHIRE.						
D	Ludlow (Ashford)	Rev. J. Selwood Tanner	5	1 2	265 T	25·53	161
D	,, (,, House)	W. Downes Hall, Esq.	5	0 5	315 T	27·14	188
D	Bromfield (Priors Halton)	Miss Beddoes	5	1 0	300	27·13	177
D	,, Vicarage	Rev. W. Selwyn	5	1 0	300 T	28·98	176
	Dowles [Bewdley]	J. M. Downing, Esq.	5	1 3	162 ⅄	22·62	137
	Cleobury Mortimer (Neen Savage)	Rev. F. Burd	5	0 11	367 T	25·29	162
	Clun (Bettws)	Mr. R. F. Brand	5	2 0	1150 T	30·50	...
	Craven Arms (Stokesay Vicarage)	Miss La Touche	5	1 0	371 ⅄	26·98	148
D	Burwarton	Rev. A. James	5	1 0	830	28·78	178
D	Bridgnorth (Coton Hall)	Col. Wakeman	3	2 0	460 T	22·21	131
D	Bishop's Castle (Totterton)	W. H. Whitaker, Esq.	5	0 7	...	27·79	150
	,, ,, (Castle Street)	E. Griffiths, Esq.	5	2 0	720 B	26·44	167
D	Much Wenlock (Larden Hall)	Miss F. Rouse Boughton	8	1 3	658 ⅄	26·68	167
D	Church Stretton (Burway Ho.)	H. Barnett, Esq., M.D.	5	1 0	640	31·67	177
D	Bridgnorth (Aldenham Park)	W. F. De Wend, Esq.	5	3 9	430 T	24·97	128
	Church Stretton (Preen Manor)	A. Sparrow, Esq.	5	1 0	700 T	25·44	158
D	,, ,, (Woolstaston)	Rev. E. D. Carr.	5	1 0	800 ⅄	27·77	182
D	Middleton in Chirbury	Rev. W. Brewster	5	1 2	702 ⅄	23·62	181
D	Much Wenlock (Willey Park)	the late Lord Forester.	5	1 0	502 ⅄	24·16	168

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1893	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	SHROPSHIRE—(*con.*)						
	Minsterley (Hampton Hall)	J. Whitaker, Esq.	...	1 0	630 T	23·45	...
D	,, (Wallop)	J. E. Severne, Esq.	6	2 0	700 T	25·98	174
D	Pontesbury (The Villa)	Mr. W. R. Croft	5	1 6	350 T	21·12	120
D	Shifnal (Neachley)	Hon. F. Bridgeman, MP	5	1 6	280 T	23·03	172
D	,, (Haughton Hall)	J. S. Brooke, Esq.	5	3 0	355	22·02	...
D	Wem (The Clive Vic.)	Rev. J. Cooper Wood	5	1 0	299 T	20·56	194
D	Cheswardine (Knighton Res.)	G. R. Jebb, Esq., C.E.	8	0 3	351 ⅄	26·81	169
	Oswestry (Hengoed)	Rev. A. R. Lloyd	5	6 0	470 ⅄	25·92	...
D	Market Drayton (Buntingsdale)	Mrs. Tayleur	5	1 0	276 ⅄	22·82	138
	Ellesmere (Oteley)	Mr. Pearse	8	1 8	292	21·51	172
D	Adderley Rectory	Rev. A. Corbet	5	0 9	290 T	21·72	171
	STAFFORD.						
	Dennis [Stourbridge]	E.B. Marten, Esq., C.E.	8	6 6	270 B	21·71	159
D	Netherton (Lodge Farm Res.)	G. R. Jebb, Esq., C.E.	5	1 0	445 ⅄	19·79	162
D	Dudley (Shavers End)	W. Vawdrey, Esq., C.E.	5	1 0	770 T	20·24	164
D	Perry Hall [Birmingham]	Mr. G. B. Mitchison	5	2 6	343 ⅄	22·57	201
D	West Bromwich	J. T. Eayrs, Esq., C.E.	8	4 6	547 T	20·43	142
	Walsall	E. B. Marten, Esq., C.E.	8	4 0	463 ⅄	24·46	173
D	,, Sewage Farm	R. H. Middleton, Esq.	8	0 11	376	19·73	128
	Wolverhampton (Town Hall)	REW Berrington Esq CE	5	15 6	481 ⅄	20·14	137
	,, Park	Mr. W. Thomas	5	1 0	435 ⅄	21·37	167
D	,, (Tettenhall)	R. Smith, Esq., C.E.	5	1 0	454 ⅄	22·51	190
D	,, (Wrottesley)	Mr. E. Simpson	8	1 0	500	19·58	139
D	Bloxwich (Sneyd Res.)	G. R. Jebb, Esq., C.E.	5	1 0	507 ⅄	22·87	151
D	Hammerwich (Cannock Chase Res)	,, ,, ,,	5	1 0	475 ⅄	20·26	173
D	Weston Park [Shifnal]	Rt. Hon. Earl of Bradford	5	1 6	400 T	22·07	167
D	Brewood (Belvide Res.)	G. R. Jebb, Esq., C.E.	8	1 0	367 ⅄	22·07	124
D	Penkridge (Rodbaston)	H. Ward, Esq.	5	1 0	324 ⅄	21·78	150
D	Hednesford	W. Vawdrey, Esq., C.E.	5	1 0	770 ⅄	18·44	159
D	Burton (Rangemoor)	Mr. Bennett	5	5 6	424 T	21·21	179
D	,, (Shobnall)	Messrs. Bass & Co.	5	6 0	156 T	18·94	139
D	,, (Derby Road)	J. G. Wells, Esq.	5	1 0	151 T	19·72	177
r	,, (Hoar Cross)	F. W. Lycett, Esq.	8	4 0	400 T	22·12	163
D	Uttoxeter (Brook House)	Mr. J. J. Gibbons	5	1 0	283 ⅄	27·03	210
D	Market Drayton (Old Springs)	F. E. Harding, Esq.	5	0 8	422	23·66	176
D†	Cheadle (The Heath House)	J. C. Philips, Esq.	5	1 0	647 ⅄	27·37	181
D†	,, (Tean Vicarage)	Rev. G. T. Ryves	5	1 1	470 T	27·96	186
D	Longton (The Meir)	J. B. Piercy, Esq.	5	1 0	618 ⅄	28·73	187
D	Newcastle (Madeley)	,, ,, ,,	5	1 0	348 ⅄	25·37	169
D	Stoke (Hartshill)	J. Knight, Esq.	5	1 0	485 ⅄	27·72	176
	,, (Stanley Reservoir)	E. B. Smith, Esq., C.E.	5	3 1	550 T	21·59	114
	Etruria	,, ,, ,, ,,	5	4 2	440	26·35	107
	Alstonfield Vicarage	Rev. W. H. Purchas	5	1 0	909 ⅄	33·53	147
D	Leek (Wall Grange)	J. B. Piercy, Esq.	5	1 0	458 ⅄	26·16	166
	Knypersley [Congleton]	E. B. Smith, Esq., C.E.	5	14 0	500 T	30·93	145
	Leek (Rudyard)	,, ,, ,,	5	12 7	500 ⅄	28·06	155

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
WORCESTER.							
D Pendock Rectory [Tewkesbury]	Rev. W. A. Strong ...	5	4	9	95 T	17·27	147
Blockley	R. B. Belcher, Esq. ...	5	1	0	500	23·45	...
Northwick Park.....	Lady Northwick.....	8	1	6	410 ⅄	20·83	...
Upton-on-Severn (Willow Bank)	J. S. Cowley, Esq.....	5	1	3	...	18·69	143
D Evesham (Lansdowne)	R. Burlingham, Esq....	5	5	0	108 T	16·86	114
†Great Malvern (Church Street)..	J. E. Palmer, Esq.....	5	1	0	361 ⅄	19·62	...
D† ,, ,, (Davenham Bank).	Mr. A. Bradshaw	8	1	0	290 T	19·84	124
D† ,, ,, (Belle Vue House).	F. V. Guy, Esq.....	5	4	0	530	20·15	154
† ,, ,, (Madresfield Rect.)	Rev. G. S. Munn	5	1	4	124 ⅄	18·86	153
D† ,, ,, (,, Court)	Mr. W. Crump	8	2	6	135 T	17·76	133
D ,, ,, (Leigh Sinton) ...	Rev. C. Robinson	5	1	0	202	20·14	155
D Worcester (Fort Royal)	Dr. Swete	5	5	0	135 T	15·90	122
D† ,, (Diglis Lock)	E.D. Marten, Esq., C.E.	5	1	0	49 ⅄	17·48	152
D ,, (Belmont Road)	G. B. Wetherall, Esq..	5	1	6	175	17·48	155
D ,, (Water Works)	S. G. Purchas, Esq. ...	5	0	8	52	16·09	152
D† ,, (Bevere Lock)	E.D. Marten, Esq., C.E.	5	1	1	52 ⅄	18·20	148
D ,, (Hawford Lodge)	F. Ames, Esq.....	5	1	1	70	20·85	125
D†Droitwich (Holt Lock)	E.D. Marten, Esq., C.E.	5	1	1	55 ⅄	18·90	146
,, ...	B. Godfrey, Esq., C.E.	5	4	0	161 ⅄	21·19	154
D Tenbury (Orleton) ..... No. 2	T. H. N. Davis, Esq. ..	5	0	9	193 ⅄	24·45	166
,, (,,) ..... No. 1	,, ,, ,, ...	5	0	9	193 ⅄	24·55	166
.. (,,) ..... No. 3	,, ,, ,, ...	5	0	9	193 ⅄	24·46	166
D Redditch (Prospect Hill)	H. Page, Esq., M.D....	5	1	0	425 T	20·52	169
D Bromsgrove (Stoke Refor.)	Mr. J. Salter	5	4	6	225 L	17·71	139
D ,, (Tardebigge Res.)...	F. A. Jones, Esq. C.E.	5	3	0	433 T	20·25	160
D†Stourport (Lincombe Lock).....	E. D. Marten, Esq., C.E.	5	1	0	62 ⅄	19·66	151
D Bromsgrove (Lower Bittal Res.)..	F. A. Jones, Esq. C.E.	5	3	0	430 T	20·66	157
D Bewdley (Winterdyne Gardens)	Mr. W. Wrather	8	2	0	...	22·74	154
D Kidderminster (Woodfield)	Rev. J. R. Burton	5	3	0	167	20·28	142
D ,, (Prospect Hill)...	Mr. J. T. Cowderoy ...	...	1	0	161 ⅄	18·30	157
Stourbridge (Pedmore)	E. B. Marten, Esq., C.E.	8	0	11	350 ⅄	23·24	179
,, (Longlands)	,, ,, ,,	...	...		...	22·02	156
King's Heath [Birmingham] ...	R. Godfrey. Esq., C.E.	5	8	0	523 ⅄	24·36	151
D Moseley [Birmingham].....	G. F. Lyndon, Esq. ...	5	1	0	478 T	21·55	163
,, (Woodstock Road)	C. J. Fowler, Esq.....	5	2	0	400 ⅄	21·99	168
WARWICK.							
D Shipston (Compton Wynyates)...	J. Sargent, Esq.....	5	2	6	480	21·63	160
Radway (Ivy Lodge).....	Rev. G. Miller	5	1	1	400	22·42	156
Farnborough Vicarage	Miss Prater	5	1	0	520 T	23·68	162
Kineton (Fenny Compton)	Miss Knott	5	4	0	436	17·18	...
D Stratford-on-Avon (Guild Street)	Rev. F. Smith	12	4	0	135 T	19·60	158
D Alcester (Ragley Hall)	The Marquis of Hertford	5	1	0	260 T	19·06	162
D ,, (,, Gardens)	Mr. A. Christie	5	1	0	150 T	19·97	178
D Snitterfield	A.H. Campbell, Esq., C.E	5	3	0	304 T	18·08	133
D Warwick (Barford Rectory).....	Rev. C. Mills.....	8	0	11	167 ⅄	18·58	163
Southam	E. Turner, Esq.....	12	2	10	...	17·23	...
Leamington (The Parade).....	J. Barnitt, Esq.	5	0	8	195 ⅄	17·22	146

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	WARWICK—(*con.*)						
	Henley-in-Arden (Barrells Park)	T. H. G. Newton, Esq.	5	1 0	318 ⊼	17·47	139
D	Kenilworth (Park Hill)	T. G. Hawley, Esq. ...	8	0 8	300	20·69	163
D	,, (The Spring)	W. Evans, Esq.	5	1 0	312 ⊼	19·58	163
	Rugby (Dunchurch Hall)	A. H. Harrison, Esq.	...	...	...	19·78	...
D	,, School	H. P. Highton, Esq.	5	1 3	383 T	21·55	162
D	Coventry (Ryton on Dunsmore)	Mr. Franklin	5	1 2	261 T	19·90	174
	,, (Priory Row)	J. Gulson, Esq.	8	1 3	279 ⊼	20·43	157
	,, (Stoke)	,, ,, ,,	8	1 3	241	21·25	161
D	,, (Coundon)	Colonel Caldicott	8	1 11	375 T	22·66	160
D	Birmingham (Shelden Rectory)	Mrs. Jones Bateman ...	8	1 0	323	21·90	154
D	,, (Edgbaston)	A. Cresswell, Esq.	8	1 0	526	20·80	158
D†	,, (Botanic Gardens)	Mr. Latham	5	5 2	505 T	19·75	161
D	,, (The Crescent)	J. J. Gilbert, Esq.	5	21 0	495 T	19·32	146
	,, (,, ,,) ...M	,, ,, ,,	5	7 0	480 T	20·40	...
D	Bedworth Cemetery	Mr. D. Bosworth	5	1 0	385 T	21·75	138
D	Castle Bromwich Hall	Mr. G. Allcock	5	1 2	363 ⊼	21·51	176
	Nuneaton (Caldecot Hall)	H. Townshend, Esq.	...	...	...	17·27	109
D	Sutton Coldfield	C F. Marston, Esq., C.E.	5	1 0	366 ⊼	18·06	131
D	Atherstone	Baldwin Latham Esq CE	5	1 0	286 T	20·21	157

DIVISION VII.—NORTH MIDLAND COUNTIES.

	LEICESTER.						
	Fleckney	J. B. Putt, Esq.	5	1 0	411 T	24·14	...
D†	Kibworth Beauchamp	T. Macaulay, Esq.	5	2 6	355 T	20·28	148
D	Leicester (Town Hall Square)	E.G.Mawbey, Esq., C.E.	9	1 7	212 ⊼	16·09	139
D	,, (,, ,,)	,, ,, ,,	5	0 6	211 ⊼	16·18	142
	,, (Humberstone Asy.)	J.E M.Finch.Esq.,M.D	8	1 0	244 ⊼	17·68	177
D†	Thornton Reservoir	F. Griffith, Esq., C.E.	8	1 2	371 ⊼	21·46	149
D	Barkby	Rev. E. N. Pochin	8	0 10	221 ⊼	19·00	155
D	Thurcaston Rectory	Rev. T. A. Preston ...	5	1 0	253 T	17·46	137
D	,, (Cropston)	F. Griffith, Esq., C.E.	8	1 0	246 ⊼	22·00	155
	Swithland	,, ,, ,,	8	1 0	...	19·85	139
	,, (The Brand)	,, ,, ,,	8	1 0	...	20·25	140
	,, (Broombriggs Hill)	,, ,, ,,	8	1 0	...	18·54	140
D	Ratcliffe College	Rev. J. Hirst	5	1 0	288 T	19·22	144
D	Rotherby Hall	J. Hames, Esq.	5	1 0	240 T	19·96	179
	Ashby-de-la-Zouch (Cole Orton)	Rev. Canon Beaumont.	5	2 9	480	23·61	125
D	Loughborough (Nan PantanRes.)	A. W. Cross, Esq., C.E.	8	2 11	269 ⊼	19·83	154
	,, (,, ,, ,,)M	,, ,, ,, ...	8	2 0	269 ⊼	19·55	...
	,, (,, ,,) ...	E. H. Warner, Esq. ...	5	1 0	420	23·93	...
D	,, (Forest Road) ...	W. Berridge, Esq., C.E.	5	0 9	147 ⊼	19·07	159
	,, (,, ,,) ...	,, ,, ,,	8	1 0	147 ⊼	19·06	159
D	Waltham-le-Wolds	Mr. Higgens	5	1 0	568	21·40	157
D†	Belvoir Castle	late W. Ingram, Esq.	8	1 0	237 T	23·36	174
D	Bottesford	Rev. R. M. Norman ...	8	0 8	100	14·71	117

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1893	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	RUTLAND.						
D	Uppingham (West Deyne)	Rev. G. H. Mullins	8	1 6	485 ⅄	17·85	156
D	Ketton Hall [Stamford]	F. Coventry, Esq.	5	1 0	130 B	16·96	168
D	,, ,, [,,]*Snowdon*	,, ,, ,,	5	1 0	130 B	15·94	162
D	,, (The Holmes)	,, ,, ,,	5	1 0	160	16·98	166
D	Tolethorpe Hall [Stamford]	C. O. Eaton, Esq.	8	0 8	160 T	16·28	139
	Burley-on-the-Hill	Mr. W. Temple	8	1 0	506	19·84	130
D	Oakham (Greetham)	Rev. C. A. Holmes	5	0 4	377 ⅄	19·85	122
D	Market Overton	Miss H. E. G. Wingfield	8	0 11	475 T	19·24	173
	LINCOLN.						
D	Stamford (Northfields)	Mr. W. Hayes	5	1 0	166 ⅄	18·59	101
D	Market Deeping (Wilsthorpe)	J. C. Gill, Esq., C.E.	8	3 10	55 ⅄	14·73	141
	Long Sutton	Mr. J. Tilson	5	4 0	18	19·33	145
	Spalding (Pode Hole)	Mr. W. Grigg	12	1 0	20 ⅄	18·13	...
D	Grantham (Stainby)	Rev. W. A. H. Thorold	4	0 9	...	19·94	...
D	,, (Denton Manor)	Sir W Welby Gregory Bt.	5	1 6	280 T	20·52	178
D	,, (Little Ponton Rect.)	Rev. P. R. Worsley	5	1 0	...	22·35	166
	,, (Saltersford)	H. Preston, Esq.	5	0 6	188 ⅄	17·83	138
D	,, (Guildhall)	J. Evans, Esq.	5	13 6	202 ⅄	18·33	148
	,, (Heydour Vicarage)	Rev. G. Deedes	5	1 10	244 T	15·75	...
D	Boston (Grand Sluice)	C. G. W. Phillips, Esq, CE	8	6 0	22	18·08	155
D	,,	W. H. Wheeler, Esq. C.E	5	6 6	16 ⅄	18·32	134
D	Sleaford (Rauceby Hall)	Col. Willson	5	0 6	125 T	19·64	123
	Leake (Lade Bank Engines)	C. G. W. Phillips, Esq, CE	...	...	...	18·00	117
D	Wrangle	A. Spurr, Esq.	5	1 0	10 ⅄	21·13	156
D	Stubton [Newark]	G. Nevile, Esq.	5	4 6	94 T	17·56	151
	Sleaford (Bloxholm)	Mr. D. Lumsden	5	3 0	80	17·30	109
	Kirkstead	Mr. R. H. Brett	5	1 2	...	16·18	...
D	,, (Woodhall Spa)	C. J. Williams, Esq., M.D	5	1 0	37 T	17·47	114
D	Horncastle (Miningsby)	W. H. Wheeler, Esq. C.E	5	0 6	135 ⅄	18·99	117
D	Spilsby	Dr. J. W. Walker	5	1 0	160 T	21·17	162
D	,, (Boston Road)	Mr. J. J. Rainey	8	0 6	130 T	19·43	132
D	,, (Hagworthingham)	Mr. R. Wright	5	1 1	252 ⅄	21·36	162
D	,, (Dalby Grange)	W. Wright, Esq.	5	2 0	250	20·88	165
D	Horncastle (Bucknall)	W. Carter, Esq.	5	1 0	100	16·83	121
	,, (Queen Street)	H. George, Esq., M.D.	5	1 0	100	19·52	...
D	Lincoln (Branston)	A. S. Leslie Melville, Esq	5	1 0	120	19·67	138
D†	,, (Boultham)	Mr. F. Terrill	5	1 0	18 ⅄	18·81	130
D	,, (Moorlands, Skellingthorpe)	Capt. Warrener	5	1 2	27 T	18·14	127
†	,, (St. Botolphs)	H. Teague, Esq.	5	1 0	25 ⅄	17·94	...
D	,, (Doddington)	Rev. R. E. Cole	5	1 2	92 ⅄	17·23	141
	,,	M. S. & L. R. Co.‡	9	3 6	26	15·51	131
	,, (The Close)	The Royal Meteor. Soc.	8	1 0	174	18·49	167
	,, (D'Isney Place)	A. H. Leslie Melville Esq	4	1 0	215 L	18·76	152
D	,, (Brayford Wharf)	Mr. J. W. Horton	5	5 8	28 ⅄	18·45	165
	,, (The Quarry)	R. Swan, Esq.	8	1 8	165 T	17·33	144
	,, (Skellingthorpe Hall)	R. C. B. Coupland, Esq.	5	1 1	...	17·56	141

‡ Kept for the Canals Department of the Manchester, Sheffield, and Lincolnshire Railway Company.
Returns supplied by G. Taylor, Esq.

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above SeaLevel feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
LINCOLN—(*con.*)							
D Horncastle (Hemingby)	Rev. E. S. Bengough..	5	1	0	158	21·68	156
Alford (The Burial Ground)	Mr. E. Hodgson	5	1	0	29 ⅄	16·51	145
D Farforth (Maidenwell House)	Miss H. E. Browne	5	1	0	380 T	22·17	178
Gate Burton	M. S. & L. R. Co.	9	3	6	96	19·30	148
D†Louth (Gospelgate)	T. W. Wallis, Esq.	5	6	0	111 ⅄	22·54	163
† ,, (Westgate)	Dr. F. Fawssett	5	0	9	120 ⅄	21·91	153
D Market Rasen	Mr. W. B. Jevons	5	0	8	84	20·33	140
,, ,,	M. S. & L. R. Co.	9	...		100	16·01	127
Gainsborough	,, ,, ,,	9	...		76	16·32	145
Stockwith	,, ,, ,,	9	3	6	21	20·69	161
D North Thoresby Rectory	Rev. H. Garrett	5	1	0	46 T	18·46	171
Caistor	Rev. R. Thomas	5	0	9	283 ⅄	14·75	108
Brigg	M. S. & L. R. Co.	9	3	6	16	16·84	144
D ,,	A. Atkinson, Esq., C.E.	8	1	2	11 ⅄	18·28	153
D Grimsby (Aylesby)	S. McAulay, Esq.	5	1	6	...	19·91	155
,,	M. S. & L. R. Co.	9	15	0	42	17·56	149
Barnetby	,, ,, ,,	9	3	6	51	17·51	138
D N. Level Engine [Thorne Donc'st'r]	A. L. Peace, Esq., C.E.	5	2	3	...	18·65	138
Crowle (Keadby)	M. S. & L. R. Co.	9	...		10	16·01	153
D Barton-on-Humber (Saxby Rec.)	Rev. R. Drummond Ash	5	2	6	...	19·38	143
D Burton-on Stather Vicarage	Rev. F. A. Jarvis	5	0	6	212 T	20·66	180
Ferriby Sluice	A. Atkinson, Esq., C.E.	5	1	0	18 ⅄	20·26	...
New Holland	M. S. & L. R. Co.	9	3	6	18	16·17	135
NOTTS.							
D Kingston Hall [Loughborough]	Mr. W. English	5	0	8	...	19·75	138
D Plumtree (Normanton-on-Wolds)	T. A. Hill, Esq.	8	1	0	170 T	21·38	162
Cropwell Bishop (Cropwell Grove)	H. Smith, jun., Esq.	5	1	1	160 T	17·43	...
D Bramcote	H. H. Enfield, Esq.	5	3	6	292 T	19·38	153
Bingham (Whatton Manor)	M. H. Hall, Esq.	5	1	5	101 T	16·86	141
D Nottingham (Beeston Fields)	G. Fellows, Esq.	5	0	9	206 ⅄	20·14	164
D ,, (The Castle)	A. Brown, Esq., C.E.	8	1	2	192 ⅄	20·17	151
,, (,, ,,)	,, ,, ,,	8	76	0	268 ⅄	18·34	142
,, (The Park)	G. Elmsley Coke, Esq.	5	1	0	247 ⅄	23·85	146
Radcliffe-on-Trent (Chestnut Ho.)	Mr. W. P. Green	8	2	0	...	17·60	...
D Nttnghm (Stoke Bardolph Sew Fm)	Mr. J. Avis	8	6	7	80	16·94	146
D ,, (Strelley Hall)	T. L. K. Edge, Esq.	8	1	0	396 ⅄	20·65	175
D ,, (Mapperley Hill)	E. Powell, Esq.	8	1	0	400 T	18·85	140
D ,, (,, Hall)	Col. Ichabod Wright	5	1	0	325 T	21·03	159
,, (Basford)	D.M.F.Gaskin, Esq., C.E	...	0	10	170	19·64	156
D ,, (Woodthorpe Grange)	H. Ashwell, Esq.	8	1	0	270	19·73	126
Nuttall	J. J. Taylor, Esq.	5	5	3	293	20·12	...
Bulwell (Springfield)	G. W. Walker, Esq.	5	0	9	166 ⅄	20·55	...
D Newark (Shelton Rectory)	Rev. R. W. Marriott	5	2	2	80?	16·75	166
Bulwell (Bestwood)	D.M.F.Gaskin, Esq., C.E	...	1	0	320	18·87	151
D Eastwood Colliery	Mr. E. Lindley	5	1	0	245 T	21·86	156
D Hucknall Torkard (Forge Mills)	J. D. Walker, Esq.	5	1	0	200 ?	19·37	183
Southwell (Oxton Hall)	Capt. Sherbrooke	5	0	9	182	17·34	...

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground ft.	in.	Rain Gauge. Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
	NOTTS—(*con.*)							
	Papplewick (Water Works)	D.M.F.Gaskin,Esq.,C.E	...	1	2	320	20·34	170
D	Southwell (Grants)	T. L. K. Edge, Esq.	5	1	0	97 ⅄	18·35	148
	Mansfield (Market Place)	Mr. P. J. Shacklock	5	1	0	350	24·82	176
D	Ollerton (Thoresby Gardens)	Mr. A. Henderson	8	0	10	175	22·77	138
	Worksop	M. S. & L. R. Co.	9	3	6	127	19·39	175
	Retford	,, ,, ,,	9	3	6	52	16·15	164
D	,, (Babworth Hall)	Col. Denison	5	0	6	92 ⅄	18·17	113
	,, (W. Retford House)	Mrs. Overend	5	1	0	...	17·82	118
D	Worksop (Hodsock Priory)	H. Mellish, Esq.	8	1	0	56 ⅄	20·11	165
	,, (,, ,,) M	,, ,,	5	1	0	56 ⅄	19·53	...
	The Gardens [Bawtry Hall]	L. T. Baines, Esq.	5	1	0	31 T	25·20	...
D	Hesley Hall [Tickhill]	B. I. Whitaker, Esq.	8	0	11	61 T	19·45	153
	DERBY.							
D	Stapenhill [Burton]	Messrs. Bass & Co.	5	4	0	170	20·41	181
	,, [,,]	A. J. Brown, Esq.	5	1	0	...	20·41	...
D	Bretby Park [,,]	Mr. J. Read	5	4	0	405 T	20·97	137
D	Melbourne (The Grange)	Miss Tasker	5	0	3	...	22·17	166
D	,, Vicarage	Rev. Canon Singleton	5	1	0	...	20·80	156
D	,, (The Hollow)	Mr. W. Garratt	5	1	0	182 ⅄	20·15	133
	Findern	Rev. B. W. Spilsbury	5	0	9	186 ⅄	19·24	...
D	Etwall	Mr. R. Giles	5	1	0	...	18·77	159
D	Elvaston	H. Chambers, Esq.	5	1	0	...	18·78	155
D	Alvaston	W. Bradshaw, Esq.	5	1	0	...	19·71	169
D	Mickleover Manor	Mr. J. Campbell	5	2	0	280	19·70	114
D	Derby (Wild Street)	Messrs. J. Davis & Son	5	1	0	174	21·13	173
D	,, (Midland Railway)	W. Langdon, Esq.	5	1	5	156 ⅄	19·82	147
	Spondon	the late T. C. Cade, Esq.	...	...		...	20·53	...
D	Breadsall Lodge	W. B. Woodforde, Esq	5	1	3	280 T	19·17	171
D	Hazelwood (Holmside)	C. H. B. Hambly, Esq.	5	1	3	500 T	22·67	173
	,, (,,)	,, ,, ,,	8	1	3	500 T	23·40	...
	,, (Chevin)	SirJ.G.N.Alleyne,Bart.	5	4	0	545	21·16	150
D	Belper (Northfield)	J. Hunter, Esq., C.E.	8	0	8	244 ⅄	24·61	177
D	Matlock (The Gables)	R. Wildgoose, Esq.	5	1	0	459 T	27·57	155
†	,, Bath	Mrs. Chadwick	5	1	6	500 T	25·20	...
	Darley Dale (Whitworth Inst.)	J. H. Dawson, Esq.	5	1	8	361 ⅄	27·86	183
D	North Darley	A. Clay, Esq.	5	1	0	400 T	29·67	191
D	Stretton (Lindway Res.)	Mr. Peers	5	4	3	447 ⅄	16·82	140
D	Stuffynwood Hall [Mansfield]	J. Paget, Esq.	5	1	3	389 ⅄	21·19	173
	Hardwick Hall	Mr. Wilson	8	2	6	594 T	26·15	163
D	Grassmoor Colliery	J. Norman, Esq.	5	19	10	370	20·63	150
D	Chatsworth Gardens	W. Chester, Esq.	8	5	9	404 T	28·39	192
D	Chesterfield (Gas Works)	C. E. Jones, Esq., C.E.	5	1	0	279	22·66	160
	,,	M. S. & L. R. Co.	9	3	6	248	21·69	152
D	,, (Linacre Reservoir)	C. E. Jones, Esq., C.E.	8	3	6	490 ⅄	22·71	145
D	,, (Tapton Grove)	M. F. Mills, Esq.	5	2	6	400	22·09	121
	Brimington Hall	G. Bond, Esq.	5	3	0	400	22·32	...
	†Buxton (Devonshire Hospital)	The Royal Meteor. Soc.	5	1	0	986 ⅄	42·21	191

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Ground in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
DERBY—(*con.*)							
Stony Middleton	Mr. Wadlow	5	4	0	660	30·52	160
†Comb's Moss	M. S. & L. R. Co.	9	3	6	1669 T	28·20	...
† ,, Reservoir	,, ,, ,,	9	3	6	710 T	30·47	203
†Chapel-en-le-Frith	,, ,, ,,	9	3	6	965 T	33·08	210
†Killamarsh (Norwood)	,, ,, ,,	9	3	6	238 T	21·14	179
D Norton [Sheffield]	Col. Creswick	6	0	9	700 T	25·33	173
†Glossop (Spire Hollin)	F. Hawke, Esq.	8	0	10	612 T	37·38	...
Woodhead Station	M. S. & L. R. Co.	9	3	6	878 T	42·69	214

DIVISION VIII.—NORTH WESTERN COUNTIES.

CHESHIRE.							
D Baddiley (Nantwich W. W.)	Baldwin Latham Esq CE	5	1	0	231	21·66	137
D Nantwich (Dorfold Hall)	J. A. Saner, Esq., C.E.	8	1	6	190	22·46	139
Eccleston	E. Wells, Esq.	5	1	1	94 ⊼	22·55	161
,, Rectory	Rev. A. G. Robins	5	5	9	...	22·77	162
D Congleton (Buglawton Vic.)	Rev. W. Besant	8	5	0	347 T	25·25	153
Bosley Reservoir	M. S. & L. R. Co.	9	3	6	590 T	26·16	189
,, Minns	,, ,, ,,	9	3	6	1210 T	23·80	187
Macclesfield (Wincle)	E. B. Smith, Esq., C.E.	5	3	0	500	33·77	176
D Chester (Rowton Grange)	T. R. Fleming, Esq.	5	1	0	100 T	20·41	162
D ,, (Christleton Hall)	Mr. T. Weaver	5	1	2	142 ⊼	21·81	173
D ,, (Waterworks)	A. Bell, Esq.	5	0	10	85 ⊼	20·76	172
,, (Northgate Station)	M. S. & L. R Co.	9	3	6	84 T	21·51	154
D ,, (Parkgate Road)	Rev. J. C. Mitchell	5	2	0	61	22·52	178
D† ,, (The Nurseries)	Messrs. Dicksons, Lim.	5	1	0	62 ⊼	22·31	173
Middlewich (Bostock Hall)	Col. France Hayhurst	5	2	0	157 ⊼	24·96	130
D Siddington (Thornycroft Hall)	C. Thornycroft, Esq.	5	3	0	377	22·53	162
D Macclesfield (The Park)	Mr. J. Dale	5	1	0	501 T	29·44	178
D Chelford (Astle Hall)	G. Dixon, Esq.	5	1	0	250 T	23·22	133
,, (,, ,,) M	,, ,, ,,	8	1	0	250 T	24·55	...
Northwich	M. S. & L. R. Co.	9	3	6	76 T	21·45	154
D ,, (Highfield)	J. A. Saner, Esq., C.E.	8	3	4	118 ⊼	23·75	163
D ,, (,,) *Snowdon*	,, ,, ,,	8	1	0	115 ⊼	24·74	163
D ,, (Winnington)	Messrs Brunner Mond & Co	5	3	8	110 ⊼	20·66	211
,, (Wincham Hall)	H. Neumann Esq	8	1	6	120 T	23·78	172
D Macclesfield (Swanscoe Park)	T. C. Horsfall, Esq.	5	1	0	676 ⊼	29·53	194
D*Neston (Hinderton)	Reginald Bushell, Esq.	5	1	0	215 ⊼	22·75	179
* ,, (,,) M	,, ,, ,,	8	1	0	215 ⊼	23·00	...
* ,, (,, Lodge) M	,, ,, ,,	5	1	0	145 ⊼	22·90	...
Frodsham (Fox Hill)	J. Reynolds, Esq.	5	1	0	330 T	23·85	171
D ,, (Dunsdale)	J. Simpson, Esq.	5	1	1	206	24·04	166
D Knutsford (Heath Side)	W. Tyrer, Esq.	5	1	0	210	24·68	195
Bollington (Spond's Hill)	M. S. & L. R. Co.	9	3	6	1279 T	30·60	...
D Hooton Grange	W. H. Jones, Esq.	5	1	0	110 ⊼	22·49	166

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea level	Depth of Rain. 1893	Days on which ·01 or more fell
			ft. in.	feet.	inches.	
CHESHIRE—(*con.*)						
D Wilmslow (Southside)	G. Pearson, Esq.	8	1 0	255 T	27·61	181
,, (Poplar House)	J. Holden, Esq.	5	1 0	237 T	25·97	176
†Whaley	M. S. & L. R. Co.	9	3 6	602 T	35·35	206
D Runcorn (Weston Point)	J. A. Saner, Esq., C.E.	8	2 4	18	19·10	145
Thurstaston (Dawpool)	T. H. Ismay, Esq.	...	...	...	21·93	...
D West Kirby (Caldy Manor)	Mr. W. Neish	5	1 0	129 L	21·42	112
D ,, ,, (Greenfield)	H. Bell, Esq	5	1 0	75 T	21·63	181
Bowdon (The Firs)	R. Swindells, Esq., C.E.	5	1 0	215 ⅄	26·62	...
D ,, (Erlesdene)	E. J. Sidebotham, Esq.	5	1 0	211 ⅄	22·39	186
D Thelwall (Highfields)	T. G. Rylands, Esq.	5	1 0	118 ⅄	25·35	184
,, (,,) M	,, ,, ,,	5	1 0	118 ⅄	25·38	...
D ,, (Millington House)	L. W. Reynolds, Esq.	5	1 0	85 ⅄	26·87	178
Altrincham (Norman's Place)	A. Griffiths, Esq.	5	1 0	150 T	27·50	170
,, (Barrington House)	J. Newton, Esq., C.E.	8	3 0	105	26·87	...
D Cheadle (Harthill)	R. A. Grundy, Esq.	5	1 0	142 T	24·98	175
D Hoylake (The Chase East)	J. F. Leigh Clare, Esq.	5	1 0	29 T	19·64	165
†Birkenhead (Bidston Obs.)	W. E. Plummer, Esq.	8	1 0	189 ⅄	24·54	181
D Northenden (Wythenshawe)	T. E. Tatton, Esq.	5	1 0	114 T	26·63	180
Marple Top Lock	M. S. & L. R. Co.	9	3 6	543 T	28·76	180
,, Aqueduct	,, ,, ,,	9	3 6	321 T	29·38	184
New Brighton (Stanley Rock)	A. C. Abraham, Esq.	5	1 0	130 B	24·31	170
D Broadbottom (Harewood Lodge)	Col. Sidebottom, M.P.	5	1 0	440	31·98	194
Godley Reservoir	G. H. Hill, Esq., C.E.	12	...	500	29·58	...
Newton	M. S. & L. R. Co.	9	3 6	396 T	27·69	182
Mottram (Hill End)	,, ,, ,,	9	3 6	680 T	32·86	199
,, (Matley's Field)	,, ,, ,,	9	3 6	399 T	30·95	180
D Hadfield (Millbrook)	J. Sidebottom, Esq.	12	3 10	442 T	35·37	205
D ,, (,,)	,, ,, ,,	8	3 10	442 T	35·02	205
Arnfield Reservoir	G. H. Hill, Esq., C.E.	12	2 6	550	34·93	...
†Rhodes Wood Reservoir	,, ,, ,,	12	1 0	520	40·44	...
†Torrside Reservoir	,, ,, ,,	12	1 6	680	38·79	...
Staleybridge (Swineshaw)	,, ,, ,,	8	3 0	884 ⅄	50·19	...
†Woodhead Reservoir	,, ,, ,,	12	0 10	660	46·44	...
LANCASHIRE.						
D Garston (Grassendale Park)	Miss E. C. Abraham	5	1 0	35 T	24·42	172
D Aigburth (Kelton)	J. Sing, Esq.	5	1 0	150 T	24·86	181
D ,, (Holmfield)	Miss Maxwell	5	1 0	100 T	25·49	184
D Warrington (Howley)	T. Longdin, Esq.	10	0 10	19 ⅄	24·40	183
,, (Cemetery) M	,, ,,	10	1 0	32	24·62	...
D ,, (Training College)	Miss Feniman	8	0 9	34 T	24·68	159
,, (Central Station)	M. S. & L. R. Co.	9	3 6	59 ⅄	22·45	170
Liverpool (Grove Park)	J. R. Darsie, Esq.	3	6 0	160	24·52	...
D ,, (Hope Street)	G. Jevons, Esq.	5	1 0	150	24·86	187
,, (Huskisson Station)	M. S. & L. R. Co.	9	3 6	40 ⅄	26·85	180
D Heaton Moor [Stockport] *new g.*	Dr. F. W. Jordan	5	1 0	235	28·17	202
D Manchester (Withington) No. 2	J. King, jun., Esq.	5	1 3	110 T	25·60	190
D ,, (,,) No. 3	,, ,, ,,	8	1 6	110 T	25·21	190

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height above Ground.	Rain Gauge. Height above SeaLevel	Depth of Rain. 1893	Days on which 01 or more fell.
				ft. in.	feet.	inches.	
	LANCASHIRE—(*con.*)						
D	Manchester (Stretford)	H. Royle, Esq., C.E.	5	1 0	86 ⅄	25·76	182
D	,, (,,)	A. E. Barker, Esq	5	7 10	...	22·35	179
D	,, (LadyBarn, Fallowfield)	Miss C. Herford	5	1 0	122 T	24·65	192
D	St. Helens (Eccleston Hill)	D. M. Gaskin, Esq., C.E.	12	2 9	268	25·73	163
	Denton Reservoir	G. H. Hill, Esq., C.E.	...	...	324 T	26·85	...
	Gorton	,, ,, ,,	...	...	263 T	26·11	...
D	Manchester (Plymouth Grove)	J. F. Roberts, Esq.	5	4 2	150 ⅄	27·97	186
†	,, (Piccadilly)	M. S. & L. R. Co.	9	40 0	194 T	24·40	177
	,, (Fairfield)	,, ,, ,,	9	6 0	312 T	30·65	188
D	,, (Oldham Road)	Dr. Tatham	5	1 0	191 ⅄	30·33	192
D	,, (Alexandra Park)	J. Casartelli, Esq	8	3 0	100 T	25·69	173
	Eccles (Worsley Hall)	Mr. W. B. Upjohn	8	8 6	80 L	22·57	...
	Blundellsands (Park Corner)	T. M. Reade, Esq. C.E.	5	1 0	33 ⅄	24·19	174
D	Stalybridge (West Hill)	Capt. Harrison	5	0 10	412 T	31·92	191
D	Manchester (Newton Heath)	J. Warren, Esq.	5	1 0	275 ⅄	32·46	185
	Ashton (Waterhouses)	M. S. & L. R. Co.	9	3 6	345 T	31·39	193
	Prestwich Asylum	The Meteor. Council	8	1 0	295	31·88	202
	,, Reservoir	G. H. Hill, Esq., C.E.	...	...	356 T	27·27	...
	†Oldham (Gas Works)	,, ,, ,,	5	4 0	600 T	35·22	...
	,, (Honeywell Lane)	M. S. & L. R. Co.	8	...	553	34·64	191
	,, (Brushes Clough)	G. H. Hill, Esq., C.E.	5	4 0	930 T	40·39	...
	,, (,, ,,)*New g*	,, ,, ,,	5	5 0	955 T	37·66	...
	Ormskirk (Aughton Springs)	G. Cooke, Esq.	5	0 6	150	26·45	...
D	Wigan Waterworks	W. Bolton, Esq.	8	1 6	225 T	33·22	185
D	Dalton (Ashurst Hall)	J. Baxendell, Esq.	5	1 6	400 T	27·87	182
D	Bolton (The Park)	W. W. Midgley, Esq.	5	1 0	390 T	36·41	205
	,, (Heaton)	RHSwindlehurstEsqCE	6	1 3	500	35·20	214
	,, (,,) .....*new gauge*	,, ,, ,,	5	1 0	500	38·40	214
D	,, (Ash Lawn, Heaton)	F. Taylor, Esq.	5	1 0	406	41·39	217
D	,, (Hurst Bank ,,)	J. Watkins, Esq.	5	3 10	442 ⅄	39·68	211
D	,, (Moss Bank)	R. H. Ainsworth, Esq.	6	1 6	575 ⅄	45·68	196
D	,, (Smithills Hall)	,, ,, ,,	8	1 2	507 T	41·72	162
	Bury (Gin Hall)	T. Rigby, Esq.	8	1 0	475	40·10	166
†	Milnrow (Piethorne, Coldgreave)	G. H. Hill, Esq., C.E.	5	4 2	894 T	31·15	...
	Rochdale (Deeplish Hill)	J. H Lancashire, Esq.	5	1 0	475 T	35·86	207
D	,, (Park Observatory)	Dr. Henry	8	0 6	472	38·54	216
D	,, (Fieldhead)	S. S. Platt, Esq., C.E.	8	12 0	484 ⅄	38·18	197
D	Ormskirk (Rufford)	J. Porter, Esq.	5	0 8	38 T	30·52	187
	Bolton (Belmont)	RHSwindlehurstEsqCE	6	0 9	800	54·70	210
	,, (,,) *new gauge*	,, ,, ,,	5	1 0	800	54·27	210
D	Southport (Birkdale)	J. Baxendell, Esq.	5	1 0	29 T	27·42	183
	,, (,,)M	,, ,,	5	1 0	29 T	27·34	...
	Rochdale (Nayden Dean)	J. Diggle, Esq., C.E.	5	1 3	948 ⅄	38·47	...
D†	,, (Facit)	T. S. Smithson, Esq.	5	0 6	855 T	46·37	213
	Southport (Hesketh Park)	J. Baxendell, Esq.	5	1 0	22 ⅄	28·58	...
D	,, (,, ,,)*M.O.g.*	,, ,, ,,	8	1 0	22 ⅄	28·67	179
	,, (Lord Street Station)	M. S. & L. R. Co.	9	...	21 ⅄	25·49	148
	Entwistle	RHSwindlehurstEsqCE	7	1 0	700	48·90	199

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground. ft.	in.	Height Above Sea level	Depth of Rain. 1893	Days on which .01 or more fell.
						feet.	inches.	
	LANCASHIRE—(*con.*)							
	Entwistle .....*new gauge*	R H Swindlehurst Esq C E	5	1	0	700	47·15	206
	Blackstone Edge (Hollingworth)	Rochdale Canal Compy‡	10	1	5	600	33·80	...
†	,, ,, (Windy Bank)	,, ,, ,, ...	10	1	6	600	35·00	...
†	,, ,, ...	,, ,, ,, ...	10	1	9	1225	31·20	...
†	,, ,, (Canal Summit)	,, ,, ,, ...	10	1	10	700	28·30	...
†	,, ,, (Chelbourn) ...	,, ,, ,, ...	10	1	3	800	34·40	...
	,, ,, (Lenches)	,, ,, ,, ...	10	1	10	800	39·10	...
†	,, ,, (Calf Lee).....	,, ,, ,, ...	10	1	6	960	31·90	...
	Chorley (Crooke Hall)	Carlton Cross, Esq. ...	5	2	6	265 T	37·39	181
	,, (Whittle le Woods Vic.)	Rev. W. B. Jacques ...	5	1	0	...	37·31	185
	Haslingden (Holden Wood).....	T. Rigby, Esq.	8	1	0	670	48·05	182
	,, (Calf Hey).....	,, ,, ...	8	1	0	800	45·76	181
	Over Darwen (Sunnyhurst Hey).	W. Stubbs, Esq., C.E..	8	1	8	915 T	39·88	183
	,, ,, (Earnsdale Res.)...	,, ,, ...	8	1	8	705 T	47·46	183
D	,, ,, (St. James's Vic.) .	Rev. W. H. Blamire...	5	1	0	564 ⊼	46·24	193
	,, ,, (Hoddlesden Res.)	J.B.McCallum Esq.,C.E	8	4	0	680	48·80	191
	,, ,, (Daisy Green) No.1	,, ,, ,, ...	8	1	0	969	45·41	190
	,, ,, (,, ,,) No.2	,, ,, ,, ...	8	1	0	969	45·22	192
	,, ,, (Pickup Bank) No.1	,, ,, ,, ...	8	1	0	720	43·79	191
D	Haslingden.....	Dr. Harrison	5	1	9	800	47·69	152
D	Todmorden (Water Works) No. 1	J. Radcliffe, Esq.	8	1	0	980 ⊼	47·37	228
D	,, (,, ,,) No. 2	,, ,, ,,	5	1	0	1326 ⊼	49·35	227
	Blackburn (Guide Reservoir) ...	J.B.McCallum,Esq.C.E	8	1	0	650	39·24	190
	,, (Witton)	,, ,, ,,	8	2	6	315 ⊼	39·99	188
	,, (Store Yard)	,, ,, ,,	8	30	0	373 ⊼	32·79	166
	,, (Water Works Office)	,, ,, ,,	8	60	0	436 ⊼	30·90	166
	,, (Pumping Station) ...	,, ,, ,,	8	6	0	600 ⊼	40·20	165
	,, (Samlesbury)	,, ,, ,,	..	...		240	36·56	...
	Accrington (Milnshaw Grounds).	Mr. Hargreaves.....	5	1	6	464 ⊼	41·04	186
D	Preston (Corporation Offices) ...	H. Reah, Esq., C.E. ...	8	16	0	123	37·08	176
	†Rawtenstall (Clough Bridge Res.)	T. Rigby, Esq.	8	1	0	900 ⊼	51·23	215
Burnley Waterworks	†Causeway Side	W. Williamson, Esq.	8	2	0	1116	41·07	...
Burnley Waterworks	†Sheddin	,, ,, ,,	8	2	0	960	41·86	...
Burnley Waterworks	†Cant Clough, S. Side	,, ,, ,,	8	2	0	900	42·42	221
Burnley Waterworks	† ,, ,, N. Side	,, ,, ,,	8	2	0	900	40·45	221
Burnley Waterworks	†Rams Clough Head	,, ,, ,,	8	2	0	1260	37·72	...
	Huncoat (Burnley Road Res.) ...	C. Harrison, Esq.	9	1	6	620 ⊼	44·42	194
	Clayton-le-Moors (Oakenshaw)..	J. H. Calvert, Esq. ...	5	9	6	290 T	40·25	...
	†Burnley (Yorkshire Street)	W. Williamson, Esq...	8	30	0	420 ⊼	42·40	201
†	,, (Swinden, Upper)	,, ,, ,, ...	8	12	0	820 ⊼	43·06	217
†	,, (,, Lower)	,, ,, ,, ...	8	2	0	745 ⊼	43·48	220
†	,, (Extwistle Moor)	,, ,, ,, ...	8	2	0	1310 T	41·25	...
D	,, (Gawthorpe Hall)	A. Ford, Esq.....	8	1	3	316 T	40·81	207
D	Preston (Haighton)	J. J. Myres, Esq., C.E.	5	1	2	255 ⊼	40·63	185
	Alston.....	H. Reah, Esq., C.E. ...	8	1	2	320 ⊼	43·77	...
	Kirkham (Weeton)	C. Arthur, Esq.	10	1	0	95 T	37·02	...
D	Barton (Anderton Fold)	W. H. Mason, Esq. ...	5	0	6	90 T	38·06	195

‡ Returns supplied by C. R. Dykes. Esq.

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
	LANCASHIRE—(*con.*)							
	Nelson (Coldwell Reservoir)	J. Newton, Esq., C.E.	8	2	0	950	29·97	...
D	Eccleston (Elswick Lodge) *old g.*	S. King, Esq.	10	1	4	50 T	31·76	187
	,, (,, ,,) Field	,, ,, ,,	5	1	0	50 T	34·32	...
	,, (,, ,,) ,,	,, ,, ,,	5	6	0	56 T	33·44	...
	Stonyhurst College	Rev. W. Sidgreaves	11	1	0	376 ⅄	50·56	212
D	,, ,,	,, ,, ,,	11	2	0	377 ⅄	50·64	212
	,, ,, M	,, ,, ,,	11	1	0	376 ⅄	50·33	...
	Preston W. Works. Knowle Green M	H. Reah, Esq., C.E.	8	1	2	400 T	42·53	...
	Loud-scales M	,, ,,	8	1	2	400 T	48·28	...
	Spade Mill M	,, ,,	8	1	2	400 T	43·57	...
	Jeffrey Hill M	,, ,,	8	1	2	900 T	49·85	...
D	St. Michael's-on-Wyre Vic. No. 3	Rev. P. J. Hornby	5	1	0	26 ⅄	33·19	190
D	Beaton Fell (Barnsfold Res.)	J. J. Myres, Esq., C.E.	5	1	6	506 ⅄	39·32	196
	,, (,, ,,) M	,, ,, ,,	5	1	6	506 ⅄	39·23	...
D	Garstang (Calder Mount)	Sydney Wilson	5	10	0	110 ⅄	32·89	170
	,, (,, ,,) M	,, ,,	5	0	6	71 ⅄	35·59	...
	Clitheroe (Downham Hall)	R. Assheton, Esq.	10	1	6	464 ⅄	43·47	...
	Chatburn (Middlewood)	W. K. Wilkinson, Esq.	5	1	3	363 T	45·84	145
	Garstang (Barnacre Reservoir)	C. Arthur, Esq.	10	1	0	617 ⅄	42·85	...
	,, (Grizedale Reservoir)	,, ,, ,,	10	1	0	519 T	42·34	...
D	,, (Forton)	W. G. Welch, Esq.	5	2	0	130 T	36·29	215
	Wyresdale (Abbeystead)	J. Cook, Esq., C.E.	8	1	0	366 T	48·85	191
	Quernmore (Old Gauge Basin) M	,, ,, ,,	8	1	0	963 T	38·31	...
	Wyresdale (Wardstone) M	,, ,, ,,	8	1	0	1440 T	51·08	...
	Quernmore (Brow Top)	,, ,, ,,	8	1	0	552 T	37·28	165
D	Overton Vicarage	Rev. W. J. Locke	5	1	0	65 T	27·30	168
	Heysham House	Miss Tomlinson	...	...		132	43·30	137
D	,, Hall	Mr. Lomas	5	1	0	96	36·87	194
	Lancaster (Marton Street Yard)	J. Cook, Esq., C.E.	8	1	9	70 ⅄	37·67	184
	,, (Greg Observatory)	,, ,, ,,	8	1	0	312	34·32	192
D	,, (Rose Bank)	J. S. Roper, Esq.	8	4	0	...	36·38	158
	,, (Escowbeck, Caton)	A. Greg, Esq.	10	3	0	150 T	38·13	173
	Hest Bank	T. Ransome, Esq.	5	2	0	58 T	31·02	166
D	Wray Vicarage	Rev. C. L. Reynolds	5	1	0	165 T	41·87	203
	Melling (Hornby Castle)	Col. Foster	8	1	8	100	43·80	185
	Barrow-in-Furness	W. Fergusson, Esq.	11	1	6	36 ⅄	34·68	181
	Arkholme (Storrs Hall)	F. F. Pearson, Esq.	5	1	0	220	42·50	...
D	Ulverston (Urswick)	Rev. R. B. Billinge	5	1	0	...	39·79	190
†	Cartmel (Holker)	Mr. W. Fox	8	4	8	155 ⅄	41·65	201
D†	Ulverston (Poaka Beck)	W. Fergusson, Esq.	11	1	6	512 ⅄	47·55	211
D	Cartmel (Pit Farm)	Mr. W. R. Nash	5	1	0	122 T	42·75	202
	,, (Broughton Hall)	Col. Ainsworth	5	2	8	210 ⅄	46·63	193
D	Colton	Rev. A. Christopherson	5	1	0	226 ⅄	53·09	203
	,,	,, ,, ,,	8	1	0	226 ⅄	53·16	...
D	Finsthwaite Vicarage	Rev. S. Inman	8	1	2	...	56·46	182
D	Broughton-in-Furness	Rev. F. A. Malleson	5	1	3	40	62·68	187
D	Blawith	Rev. J. Ashburner	5	0	10	185 T	53·32	181

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which '01 or more fell.
			ft. in.	feet	inches.	
LANCASHIRE—(*con.*)						
D Hawkshead (Esthwaite Lodge)..	Major Alcock-Beck ...	5	3 6	232 T	65·68	211
,, (,, Strickland Ease)M	,, ,, ,, ...	5	3 6	254 T	56·32	...
D†Duddon Valley (Seathwaite Vic.)	Rev. S. R. M. Walker	5	1 0	330 T	80·17	216
D†Monk Coniston Park	Mr. Etty...	5	1 4	305 T	80·86	204
Hawkshead (Black Fell) .....M	S. A. Marshall, Esq. ..	5	1 6	1055 T	58·95	...
D Skelwith Fold [Ambleside]	,, ,, ,, ...	5	1 0	333	76·73	226
,, ,, [,,] ...M	,, ,, ,, ...	5	1 0	333	75·40	...

DIVISION IX.—YORKSHIRE.

WEST RIDING.						
†Sheffield (Brincliffe Rise)	A. W. Chadburn, Esq.	5	1 0	500 T	25·90	166
† ,, (,, Edge).....	M. S. & L. R. Co.	9	3 6	336 T	25·20	157
† ,, (Redmires)	E. M. Eaton, Esq., C.E.	10	5 0	1110 ⅄	34·23	193
,, (,,) ..... *weekly*	,, ,, ...	8	4 0	1110 ⅄	33·85	...
D ,, (Tylecote, Ranmoor) ...	J. Dixon, Esq.	5	1 0	610 ⅄	29·00	163
D† ,, (Broomhall Park)	D. Doncaster, Esq.....	10	2 0	330 ⅄	24·01	163
,, (Rivelin).....	E. M. Eaton, Esq., C.E.	10	4 0	564 ⅄	30·83	165
,, (,,)..... *weekly*	,, ,, ,, ...	8	4 0	564 ⅄	30·91	...
† ,, (Crookes).....	,, ,, ,, ...	10	2 0	629 ⅄	24·54	163
† ,, (,,)..... *weekly*	,, ,, ,, ...	8	2 0	629 ⅄	24·54	...
D ,, (Weston Park)	E. Howarth, Esq.	8	1 0	430 ⅄	25·75	172
† ,, (Victoria Station)	M. S. & L. R. Co.	9	3 6	188 T	19·52	160
† ,, (Tinsley Locks)	,, ,, ,, ...	9	...	143 T	19·57	140
Tickhill (Sandbeck Park)...	Mr. G. Summers.....	8	1 0	150 T	22·80	162
†Rotherham (Moorgate Grove) ...	R. Chrimes, Esq.	5	1 0	262 ⅄	21·84	167
,, (Thrybergh)	W.H.R.CrabtreeEsqCE	8	1 0	184 ⅄	19·96	159
D Sheffield (Chapeltown)	Mr. D. Bell.....	8	5 0	582 L	24·33	171
Doncaster (Firsby).....	W.H.R.CrabtreeEsqCE	8	1 3	189 ⅄	23·85	170
D ,, (Wadworth Hall)	Rev. J. C. Ross	8	1 0	190 ⅄	21·21	166
,, (,, ,,)	,, ,, ...	5	1 0	190 ⅄	21·20	...
D Bolsterstone (Waldershaigh) ...	C. M. Wilson, Esq.....	8	3 1	950 T	28·23	206
Wortley	M. S. & L. R. Co.	9	3 6	548	24·38	146
Elsecar	,, ,, ,, ...	9	3 6	175 T	22·22	150
D Wath-upon-Dearne (Chapel St).	Dr. Burman	8	1 0	185 ⅄	20·75	154
,, (West Melton)	late W. Jackson, Esq. .	6	0 10	152 T	18·65	102
Worsborough	M. S. & L. R. Co.	9	...	225 T	22·68	149
D Stainborough(Wentworth Castle)	W. Fisher, Esq.....	8	2 6	520 T	25·45	150
Doncaster	M. S. & L. R. Co.	9	...	35 T	21·36	151
,, (Pumping Station) ...	WHR Crabtree,EsqCE	8	0 6	30 ⅄	20·53	123
D ,, (Magdalens)	Mr. C. Parkin	5	4 9	46 T	21·72	152
†Dunford Bridge Station	M. S. & L. R. Co.	9	3 6	954 T	38·51	172
† ,, ,, (Reservoir).....	G. H. Hill, Esq., C.E..	12	2 0	1100 T	40·55	...
Greenfield (Chew Mount).....	,, ,, ,, ...	...	...	...	46·50	...
,, (Yeoman Hey).....	,, ,, ,, ...	...	...	759	46·50	...
†Penistone (Carlcotes).....	M. S. & L. R. Co.	9	3 6	1075 T	33·80	196

DIVISION IX.—YORKSHIRE—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
				ft in.	feet.	inches.	
	WEST RIDING—(*con.*)						
†	Penistone	M. S. & L. R. Co.	9	3 6	717 T	31·66	167
	,, (Hazlehead)	,, ,, ,,	9	...	868 T	36·08	181
D	,, (Ingbirchworth Res.)	J. H. Taylor, Esq. C.E.	8	5 0	853 R	29·04	181
	Holmbridge (Yateholme)	O. J. Kirby, Esq., C.E.	7	1 0	861 R	50·70	...
	,, (Holme Styes)	Mr. L. Hinchliffe	7	2 0	830 T	38·00	...
	,, (Boshaw Whams)	,, ,, ,,	7	2 6	930 T	41·50	...
	,, (Bilberry Reservoir)	,, ,, ,,	7	2 6	820 T	52·20	...
D	Barnsley (Church Street)	Dr. Sadler	5	5 2	350 R	21·79	169
D	,, (Wellington Street)	J. H. Taylor, Esq., C.E.	8	15 0	350	21·68	152
	,,	M. S. & L. R. Co.	9	...	175 T	19·76	164
†	Saddleworth Station ..... M	L. K. Jones, Esq.	5	4 2	630 T	35·59	...
	Barnsley (Cawthorne)	Rev. C. T. Pratt	5	1 6	340 R	25·09	132
	Strinesdale [Oldham]	G. H. Hill, Esq., C.E.	5	4 0	815	30·28	...
†	Meltham (Harden Moss)	J. W. Schofield, Esq.	8	1 2	1212 T	40·52	...
	,, (,, ,,) *new g.*	,, ,, ,,	8	1 0	1212 T	42·92	...
	Wessenden Head	,, ,, ,,	8	1 0	1270 T	42·59	...
	,, (Hollin Bank Moss)	,, ,, ,,	8	1 0	1360 T	?24·55	...
	,, (Great Butterley)	,, ,, ,,	8	1 0	1110 T	33·86	...
	,, (Bobus)	,, ,, ,,	8	1 0	1200 T	34·33	...
	Standedge (Castleshaw)	G. H. Hill, Esq. C.E.	...	...	876 T	37·28	...
	,, (Redbrook Res.) *old g.*	L. K. Jones, Esq.	8	1 8	1150	41·38	...
	,, (,, ,,) *new g.*	,, ,, ,,	8	1 6	1150	39·13	...
†	Meltham (Brow Grains)	J. W. Schofield, Esq.	8	1 0	900 T	41·82	...
	Denshaw (Ox Hey)	G. H. Hill, Esq., C.E.	...	...	1030	36·71	...
	,, (New Year's Bridge)	,, ,, ,,	5	4 0	1012 T	36·97	...
	,, (Ready Con Dean)	,, ,, ,,	...	...	1414	31·22	...
	Meltham (Royd Edge)	C. L. Brook, Esq.	8	1 0	585 T	42·94	...
D	,, (Harewood Lodge) *new g*	,, ,, ,,	8	1 0	514 L	36·50	192
†	,, Grange	J. W. Schofield, Esq.	8	1 2	850 T	33·82	...
†	Marsden (Deer Hill)	,, ,, ,,	8	1 0	1149 T	36·20	...
	,, (,,) ..... *new g.*	,, ,, ,,	8	1 0	1149 T	38·58	...
D	Doncaster (Kirk Bramwith)	B. S. Brundell, Esq. C.E.	5	1 0	17 R	19·06	156
D	,, (Burghwallis Rec.)	Rev. F. W. Peel	5	1 6	86 T	20·48	166
D†	Slaithwaite (Blackmoorfoot)	J. W. Schofield, Esq.	8	1 0	800 T	35·82	208
†	Honley (Northgate House) ...M	W. Brooke, Esq.	5	1 0	350 T	27·59	...
D	Wakefield (Walton)	E. Simpson, Esq.	5	1 0	140 T	18·60	134
	Huddersfield (Bank Field, Golcar)	J. E. Ramsden, Esq.	5	1 0	400 T	33·30	184
D†	,, (Dalton)	J. W. Robson, Esq.	12	1 0	350 R	26·61	179
	Longwood (Bilberry Edge)	J. W. Schofield, Esq.	8	1 0	1090 T	26·43	...
D	Ackworth (Nostell Priory)	Mr. J. Easter	5	4 0	...	21·33	130
D	Pontefract (Purstone Hall)	P. C. Hall, Esq.	5	1 0	190 T	21·25	171
D	Mirfield (Cote Wall)	E. B. W. Balme, Esq.	8	0 9	200	25·13	143
D†	Wakefield Prison	Dr. H. Clarke	8	1 0	96 R	21·54	139
	,, (Alverthorpe Hall)	H. Clarkson, Esq.	5	1 0	150 T	24·62	185
D	,, (Field Head)	R. Porter, Esq.	8	1 6	250 T	19·40	131
D	,, (Stanley Grange)	F. E. Haworth, Esq.	5	1 0	180 T	20·94	153
	Goole (Swinfleet)	Mr. G. Harrison	5	6 0	...	21·12	...
D	,,	W. E. Grayburn, Esq.	5	1 0	18 T	17·45	144

DIVISION IX.—YORKSHIRE—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain 1893	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	WEST RIDING—(*con.*)						
	Batley (Staincliffe Reservoir) ...	O. J. Kirby, Esq., C.E.	7	1 0	492 ↑	22·00	...
D	Sowerby Bridge (Haugh End) ...	J. S. Rawson, Esq. ...	5	0 8	550 ↑	34·52	193
	Halifax (Bents, Norland) ... ..M	,, ,, ...	5	0 8	800 ↑	29·17	...
D	,, (BermersideObservatory)	J. Gledhill, Esq.	8	0 6	500	26·09	177
	,, (Hall Ings, S. Owram)...	Rev. G. E. Aspinall ...	5	0 7	750 ↑	26·47	...
	,, (Thorpe) ... .M	J. S. Rawson, Esq. ...	8	0 8	345 ↑	37·43	...
	,, (,,)	,, ,, ...	5	0 8	345 ↑	37·52	196
D	,, (Public Library)	J. Whiteley, Esq.	12	1 0	625 ↑	26·15	155
†	,, (Albert).....	J. A. Paskin, Esq., C.E.	5	1 0	795 ↑	27·50	...
†	,, (Gibbet).....	,, ,, ,, ...	5	6 0	568 ↑	25·75	...
†	,, (Ramsden Wood).....	,, ,, ,, ...	8	1 2	816 ↑	33·06	...
	Leeds (Methley Park)	J. Richardson, Esq. C.E.	5	0 9	98 ↑	21·36	...
	Hebden Bridge	A. R. Crossley, Esq....	4	1 0	479	40·92	206
	Halifax (Castle Carr)	J. A. Paskin, Esq., C.E.	...	...	1060 ↑	33·28	...
†	,, (Midgley Moor) .....M	,, ,, ,, ...	7	0 6	1350 ↑	42·38	...
†	,, (Warley Moor).....M	,, ,, ,, ...	7	0 6	1425 ↑	37·98	...
†	,, (Ogden) .....M	,, ,, ,, ...	8	1 3	990 ↑	39·09	...
	,, (Ovenden)	,, ,, ,, ...	...	...	1375	41·11	...
	,, (Widdop).....	,, ,, ,, ...	...	...	1050	46·92	...
†	,, (Walshaw Dean).....M	,, ,, ,, ...	8	0 3	1380 ↑	42·06	...
D	South Milford Rectory	Rev. F. J. Young	5	1 2	70 ↑	21·25	155
	Leeds (Wortley Res.)	T. Hewson, Esq., C.E..	8	0 9	307 ↑	23·00	158
	Bradford (Queensbury).....	R. J. Foster, Esq.....	8	2 2	1050	30·70	153
	,, (Brayshaw Reservoir)..	J. Watson, Esq., C.E..	5	1 0	982 ↑	28·53	181
	,, (Merton Road)	A. Wilson, Esq.....	5	0 6	443 ↑	28·21	187
D	,, (The Exchange).....	A. E. Preston, Esq, C.E.	8	65 6	395 ↑	22·67	173
	,, (Thornton Moor)	J. Watson, Esq., C.E..	5	1 0	1218 ↑	37·94	236
	,, (Stubden) *old gauge* ...	,, ,, ,, ...	8	1 0	1075 ↑	41·55	215
	,, (,,)	,, ,, ,, ...	5	1 0	1071 ↑	37·77	215
	,, (Nan Scar, Oxenhope)M	,, ,, ,, ...	5	1 0	1101 ↑	45·41	...
	,, (Stairs) .....M	,, ,, ,, ...	5	1 0	1401 ↑	46·54	...
	,, (Leeming Res.) .....M	,, ,, ,, ...	5	1 0	850 ↑	39·73	...
	,, (Doe Park) *old gauge* ..	,, ,, ,, ...	8	1 0	810 ↑	39·50	212
	,, (,, ,,)	,, ,, ,, ...	5	1 0	811 ↑	33·52	212
	,, (Manningham)	J. McLandsborough, Esq	5	6 6	428 ↑	23·63	...
	,, (Leeshaw Res.) ..... M	J. Watson, Esq., C.E..	5	1 0	875 ↑	44·96	...
	,, (Chellow Dean)	,, ,, ,, ...	5	1 0	645 ↑	31·40	190
	,, (Hewenden Res.). *old g.*	,, ,, ,, ...	5	1 0	700 ↑	32·65	206
	,, (,, ,,)	,, ,, ,, ...	5	1 0	701 ↑	30·85	206
	,, (Heaton Res.) ...*old g.*	,, ,, ,, ...	8	1 0	530 ↑	*28·70*	175
	,, (,, ,,)	,, ,, ,, ...	5	1 0	531 ↑	25·60	172
D	Leeds (Holbeck)	Messrs. J. Rhodes & Co.	10	32 0	127 ↑	18·77	126
	,, (,,)	S. A. Marshall, Esq....	5	1 8	95	20·54	150
D	,, (,, W. Works Depot)	T. Hewson, Esq., C.E..	8	0 9	93 ↑	24·33	176
D	,, (Museum).....	Mr. H. Crowther	10	46 0	177	22·94	165
	,, (Woodhouse Moor).....	T. Hewson, Esq., C.E.	8	0 9	307 ↑	24·07	178
D	,, (,, Cliff)	R. Reynolds, Esq.....	5	1 0	330	23·59	177
D	,, (Elmete Hall, Roundhay)	J. H. Kitson, Esq.....	5	1 6	400 ↑	24·00	163

DIVISION IX.—YORKSHIRE—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
WEST RIDING—(*con.*)						
Leeds (Weetwood Reservoir) ...	T. Hewson, Esq., C.E.	8	0 9	328 ⅄	23·02	166
Shipley (Moor Head)	G. Knowles, Esq.	8	10 0	500	26·19	..
D Leeds (Allerton Hill)	T. Fenwick, Esq., C.E.	5	0 7	418 ⅄	24·11	189
D ,, (Oliver Hill, Horsforth)...	C. France, Esq.	3	1 0	250 T	24·73	204
Bingley (Gilstead Filters)	J. Watson, Esq., C.E..	5	1 0	572 ⅄	22·98	185
Leeds (Eccup South)	T. Hewson, Esq., C.E..	8	0 9	390 T	24·47	174
,, (,, East)	,, ,, ,, ...	8	0 9	375 ⅄	23·80	162
†Bingley (Sunnydale)	J. Watson, Esq., C.E..	5	1 0	975 T	29·40	172
Harewood (Arthington)	T. Hewson, Esq., C.E.	8	0 9	139 ⅄	29·64	160
Boston Spa	Rev. P. M. Eastman ...	5	1 0	...	22·33	...
Skipton(Gill Grange,Silsden)...M	J. Watson, Esq., C.E..	5	1 0	883 T	27·20	...
D Ilkley	G. W. Worfolk, Esq...	5	19 0	331 L	32·77	163
† ,, (Cherry Bank)	late H.Richardson,Esq.	8	1 3	600	32·35	...
Skipton (Silsden Reservoir)	J. Watson, Esq., C.E..	5	1 0	560 ⅄	27·70	163
Leathley (Lindley Wood S).....	T. Hewson, Esq., C.E..	8	0 9	312 T	26·62	185
,, (,, ,, N).....	,, ,, ,, ...	8	0 9	320 T	26·82	185
Slaidburn (Hareden Brook) ...M	H. Reah, Esq., C.E. ...	8	1 2	540	67·10	...
,, (Langden Brook) ...M	,, ,, ...	8	1 2	556	67·37	...
,, (Whiteholme)	W. K. Wilkinson, Esq.	5	1 3	475 T	51·12	173
Skipton (Cringle's Reservoir) ...	J. Watson, Esq., C.E..	5	1 0	760 T	29·25	163
,, (Counter Hill) .....M	,, ,, ,, ...	5	1 0	951 ⅄	28·03	...
,, (Chelker Reservoir) ...M	,, ,, ,, ...	5	1 0	730 ⅄	30·85	...
† ,, (*Craven Herald* Office)...	E. Townsend, Esq.....	8	2 0	360	31·17	186
Slaidburn (Dunsop Houses)	J.B.McCallumEsq.,C.E	8	1 0	450 T	63·83	183
,, (Middle Knoll)..... M	,, ,, ,, ...	8	2 6	1298 ⅄	54·15	...
,, (Brennand)	,, ,, ,, ...	8	1 0	820 ⅄	69·06	190
,, (Whitendale)	,, ,, ,, ...	8	1 0	830 ⅄	74·86	191
,, (Cabin Hill).. .....M	,, ,, ,, ...	8	3 1	1559 ⅄	64·62	...
,, (Baxton Fell) .....M	,, ,, ,, ...	8	2 6	1540 ⅄	50·12	...
York (Mount Villas)	J. S. Rowntree, Esq....	5	0 9	70	22·30	184
D ,, (Burton Croft)	G. Crawhall, Esq.	5	1 0	51	23·92	163
D ,, (Cherry Hill)	late H.Richardson,Esq.	5	1 6	60 T	22·54	163
,, (Phil. Soc. Gardens)	The Meteor. Council ...	8	1 9	53 ⅄	22·33	166
,, (,, ,, ,,)	,, ,, ,, ...	8	1 9	53 ⅄	22·51	165
D ,, (Bootham)	J. E. Clark, Esq.	5	0 4	50	24·16	145
Wetherby (Ribston)	Mr. Jones	5	1 2	130 ⅄	16·91	...
Fewston (Swinsty E).....	T. Hewson, Esq., C.E.	8	0 9	460 T	31·32	185
,, (,, W).....	,, ,, ,, ...	8	0 9	425 T	31·28	185
,, (Timble)	,, ,, ,, ...	8	0 9	720 T	29·91	200
,, South	,, ,, ,, ...	8	0 9	525 T	31·84	198
,, North	,, ,, ,, ...	8	0 9	525 T	28·08	198
,, (Spinksburn)	,, ,, ,, ...	8	0 9	636 T	27·62	181
Blubberhouses	,, ,, ,, ...	8	0 9	575 T	31·87	190
D†Harrogate (Bog Valley Gardens)	J. Farrah, Esq.	5	1 0	344	24·68	182
D ,, (The Stray)	Mr. Gledhill	5	1 0	...	25·07	181
D ,, ...	,, ,, ...	5	1 0	...	25·11	180
Skipton (Barden Res.) *old g.* ...	J. Watson, Esq., C.E..	8	1 2	746 ⅄	39·25	212
,, (,, ,,)	,, ,, ,, ...	5	1 0	746 ⅄	40·84	212

DIVISION IX.—YORKSHIRE—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Ground in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
WEST RIDING—(*con.*)							
Otterburn-in-Craven	W. Gomersall, Esq.	5	1	0	510 ⊼	39·44	196
West End	T. Hewson, Esq., C.E.	8	0	9	787 T	39·51	220
,, ,, (Thruscross)	,, ,, ,,	8	0	9	900 T	31·82	200
Skipton (Upper Res., Barden)	J. Watson, Esq., C.E.	5	1	0	1250 ⊼	41·41	221
,, (Thorpe Fell ,,) M	,, ,, ,,	5	1	0	1661 ⊼	40·72	...
,, (SandbedBeck,Burnsall) M	,, ,, ,,	5	1	0	676 ⊼	41·09	...
Knaresborough	G. Paul, Esq.	5	1	0	214 T	23·77	167
D† ,, (Conyngh'm Hall)	B. T. Woodd, Esq.	5	1	3	190 T	23·25	122
D ,, (Farnham)	R. Elmhirst, Esq.	5	1	0	170 ⊼	20·29	171
D Ripley Castle	Mr. J. Tunnington	5	1	0	230 T	24·64	161
D Settle (The Terrace)	J. W. Shepherd, Esq.	8	1	2	525 ⊼	40·61	207
D†PateleyBdg.(Castle Stead)	G. Metcalfe, Esq.	5	1	0	410	34·22	175
,, ,, (GrimwithRes) *old g.*	J. Watson, Esq., C.E.	8	1	0	890 ⊼	40·43	196
,, ,, (,, ,,)	,, ,, ,,	5	1	0	893 ⊼	40·73	196
,, ,, (,, Trunla Hill) M	,, ,, ,,	5	1	0	1201 ⊼	35·67	...
Pateley Moor (Smaden Head)	T. Hewson, Esq., C.E.	8	0	9	793 ⊼	20·69	139
D†Malham Tarn	Mr. Coulthard	5	1	0	1296 ⊼	53·05	230
D ,, ,, *new gauge*	,, ,,	8	1	0	1296 ⊼	52·75	230
Dallow Moor (High Skeldon)	T. Hewson, Esq., C.E.	8	0	9	719 ⊼	28·39	163
,, ,, (Harper Hill)	,, ,, ,,	8	0	9	859 ⊼	28·74	157
†Ripon (North Lodge)	F. D. Wise, Esq.	5	1	0	120	19·73	...
D ,, (W.W. Lumley Moor)	Mr. G. Craggs	8	2	0	582 T	27·92	166
†Ramsgill (Raygill House)	J. Watson, Esq., C.E.	5	1	0	925 T	45·24	211
,,	,, ,, ,,	5	1	0	450 T	35·94	195
D†Arncliffe Vicarage	Rev. W. A. Shuffery	8	3	0	734 T	54·96	198
D ,, (Amerdale)	J. Hammond, Esq.	8	1	6	730	53·55	207
†Nidderdale (East Gill) M	J. Watson, Esq., C.E.	5	1	0	1710 T	49·31	...
† ,, (High Riggs)	,, ,, ,,	5	1	0	1010 T	45·18	195
† ,, (Rain Stang) M	,, ,, ,,	5	1	0	1470 T	39·34	...
† ,, (West Houses)	,, ,, ,,	5	1	0	1150 T	51·22	147
† ,, (New Houses)	,, ,, ,,	5	1	0	755 T	34·75	200
KirkbyMalzeard (Drovers' Inn)	T. Hewson, Esq., C.E.	8	0	9	633 ⊼	29·02	150
,, ,, (Hawset)	,, ,, ,,	8	0	9	820 ⊼	32·00	194
,, ,, (HambletonHill)	,, ,, ,,	8	0	9	1106 ⊼	31·96	...
,, ,, (Bagwith Brae)	,, ,, ,,	8	0	9	697 ⊼	27·89	185
,, (Stone andEarsWham)	,, ,, ,,	8	0	9	1118 ⊼	35·63	...
D Ripon (High Bank, Mickley)	Miss Harrison	5	1	6	225 T	23·93	153
Masham Moor (Benjy Guide)	T. Hewson, Esq., C.E.	8	0	9	1412 ⊼	39·34	...
,, ,, (W Somerside)	,, ,, ,,	8	0	9	960	31·39	151
,, ,, (High Sour Mire)	,, ,, ,,	8	0	9	884 ⊼	28·34	174
,, ,, (Leighton)	,, ,, ,,	8	0	9	636 ⊼	27·02	147
,, ,, (Low Houses)	,, ,, ,,	8	0	9	693 ⊼	30·23	176
D Oughtershaw Hall	C. H. B. Woodd, Esq.	8	1	6	1175 T	60·32	202
Sedbergh (Gate)	The Meteor. Council	5	0	6	400 T	50·42	194
D† ,, (Brig Flatts)	J. Handley, Esq.	5	1	0	300 T	47·00	201
† ,, (Thorns Hall)	Miss Sedgwick	5	1	0	400 T	47·23	197

DIVISION IX.—YORKSHIRE.—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
EAST RIDING.						
Patrington (Spurn Head)	The Meteor. Council	8	1 0	27	16·52	155
D ,,	W. B. Pugh, Esq.	5	3 0	46 ⅄	19·57	127
D Hull (Tranby Park)	G. Bohn, Esq., C.E.	5	1 0	161 ⅄	19·37	160
D ,, (Derringham)	W. Lawton, Esq.	5	2 2	10 ⅄	18·27	124
D† ,, (Pearson Park)	Mr. E. Peak	5	0 6	6	20·36	155
D Hedon (The Vicarage)	Rev. J. H. Richardson	5	1 0	...	19·72	162
D Brough (Brantinghamthorpe)	Mr. R. C. Kingston	5	1 6	150 T	24·91	118
D Cottingham	J. H. Hill, Esq.	8	1 3	26 T	21·35	170
Market Weighton (Houghton)	Canon J. Wells	5	1 0	175 T	21·38	...
D Beverley (East Riding Asylum)	Dr. Macleod	5	1 0	175 T	22·10	159
,, (Alexandra Terrace)	late T. Dyson, Esq.	12	6 0	64 ⅄	20·37	152
D ,, (Register House)	G. A. Thompson, Esq	5	1 0	31	22·21	171
,, (Hull Bridge)	W. Evans, Esq.	5	2 6	11 ⅄	19·73	173
D Market Weighton (Dalton Hall)	Mr. J. Allsop	8	1 4	150 T	22·47	155
D Hornsea (Elim Lodge)	T. B. Holmes, Esq.	8	1 3	30	21·44	177
Middleton-on-the-Wolds	Rev. H. D. Blanchard	5	1 0	150	20·55	118
Brandesburton (Hempholm)	W. Evans, Esq.	5	2 6	11 ⅄	20·48	176
D Pocklington (Warter)	J. Coxon, Esq.	5	1 10	230 T	23·89	162
Catton Rectory [York]	Rev. H. L. Puxley	5	0 2	50 T	22·17	...
D Driffield (Beverley Road)	Rev. J. T. Harwood	8	8 0	68 T	21·27	160
D ,, (York Road) *Snowdon.*	late J. Lovel, Esq.	5	1 0	76 T	22·84	171
,, (,, ,,) ....M	,, ,, ,,	5	1 0	76 T	22·59	...
Wetwang	Rev. E. M. Cole	5	1 0	235 T	23·09	155
D Thixendale	Rev. W. H. Fox	10	0 10	425 T	26·75	173
D Lowthorpe (The Elms)	H. Onslow Piercy, Esq.	5	1 0	63 ⅄	22·78	165
D Malton (Norton)	E.K. Spiegelhalter, Esq.	5	1 0	66 T	22·97	168
Ganton Hall [Scarborough]	Mr. Sherwood	...	...	...	?21·15	...
Hunmanby (Holly Bank)	Miss Suter	5	...	...	22·77	...
NORTH RIDING.						
Terrington Hall	A. Hugh Douglas, Esq.	5	1 5	300	21·37	167
†Old Malton	H. Hurtley, Esq.	10	1 0	75 T	23·29	...
D Melmerby (Baldersby)	W. Gregson, Esq.	5	1 0	101 T	20·11	158
D Masham (Aldburgh Hall)	Miss Greenwood	5	1 0	200 ?	23·88	209
Oswaldkirk (The Hermitage)	Mrs. Munby	5	0 8	425	19·96	...
D Thirsk (Sowerby)	C. M. Swarbreck, Esq.	5	1 0	105 T	23·32	176
D ,, (,, Rose Cottage)	A. C. Bamlett, Esq.	5	1 0	118	20·25	116
D Pickering (The Rectory)	Rev. G. H. Lightfoot	5	1 6	150	23·19	172
,,	Mr. E. Clarke	...	...	...	*23·92*	...
D Bedale (Thorpe Perrow)	Mr. W. Culverwell	5	1 6	170	21·35	136
†Hawes Junction	The Meteor. Council	8	1 0	1135	56·46	216
†Aysgarth Vicarage....M	Rev. F. W. Stow	3	1 0	644 T	34·35	...
D ,, ,,	,, ,,	8	1 0	659 T	30·86	187
D ,, (Carperby)	J. Willis, Esq.	6	1 0	720 T	30·85	177
†Leyburn (Grove Ho.)	G. W. Wray, Esq.	7	1 0	660 T	26·97	179
D† ,, (Bolton Hall)	Mr. F. Scrivener	8	1 0	420	26·30	160
Seamer (Irton)	W. Millhouse, Esq. C.E.	8	...	94	25·89	144
Scarborough (Osgodby)	,, ,,	8	...	166	21·76	122

DIVISION IX.—YORKSHIRE—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
NORTH RIDING—(*con.*)						
D Scarborough (South Cliff)	Dr. Monk	...	...	...	22·13	170
Hambleton Hills (Paradise)	A. C. Bamlett, Esq.	5	1 0	1050	?18·67	...
D† Hawes (Hardrow Vicarage)	Rev. R. Pinck	5	1 0	790 T	46·62	216
Northallerton	The Meteor. Council	8	...	...	22·10	169
D ,, (Osmotherley)	T. Yeoman, Esq.	8	0 8	650	20·95	130
Richmond (The Grove)	G. Roper, Esq.	5	1 3	...	23·51	...
Northallerton (Rounton Grange)	The Royal Meteor. Soc	8	1 0	250	20·53	161
D Ingleby Manor	The Hon. H. Sidney	5	0 11	440 T	29·04	159
D ,, Greenhow Vicarage	Rev. J. Hawell	5	1 0	448 T	27·38	165
D East Layton [Darlington]	Mrs. Proud	5	1 0	575 T	21·34	143
D Stanwick Park [,,]	Mr. W. Higgie	5	1 1	300	21·92	166
D Forcett Park [,,]	J. Michell, Esq.	5	1 0	360 T	22·72	182
Whitby (Royal Crescent)	T. Newbitt, Esq.	8	1 6	145 T	23·87	142
Bowes	G. J. Symons, Esq. F.R.S	8	1 0	950	24·80	...
Guisborough (Hutton Hall)	Sir J. W. Pease, Bt., M.P.	5	1 3	400 T	22·31	133
D ,, (Lockwood Beck Res)	W. I'Anson, Esq., C.E.	8	1 0	632 T	26·43	174
D Saltburn	W. W. Stainthorpe, M.D	5	0 9	150	19·31	168
D Middlesborough (Albert Park)	J. M. Parnaby, Esq.	8	2 0	30	19·29	152
D Mickleton	G. J. Symons, Esq. F.R.S	8	...	...	25·32	153
† ,, (Lime Kiln Pasture) M	,, ,, ,,	8	1 0	1175 T	23·80	...
† ,, (,, ,, ,,) M	,, ,, ,,	8	1 0	1175 T	26·75	...

DIVISION X—NORTHERN COUNTIES.

DURHAM.						
D Darlington (Hurworth Grange)	J. E. Backhouse, Esq.	5	1 0	161 T	20·02	163
D ,, (Elcott, Hurworth)	Rev. W. E. Stewart	5	1 0	121 T	19·84	186
,, (Dinsdale Rectory)	Rev. J. W. Smith	5	2 0	54	20·33	153
D ,, (South End)	Mr. N. Black	8	0 10	140	19·36	179
D† ,, (Cleveland Parade)	S. Hare, Esq.	5	1 0	160 T	18·37	173
,, (Langholme Crescent)	J. H. Simpson, Esq.	5	1 6	165 T	19·77	166
D ,, (Hummersknott)	Mr. J. Short	5	1 0	...	20·47	139
D ,, (Brinkburn)	Mr. H. Waud	8	1 6	165	18·41	120
D Barnard Castle (Whorlton)	Miss Dodgson	5	0 11	424 T	21·21	166
D ,, ,, (County School)	E. Wells, Esq.	5	1 6	540 T	22·90	171
†Staindrop (Raby Castle)	Mr. R. W. Smith	8	1 0	460 T	26·25	...
Stockton (Rimswell)	W. Anderson, Esq., C.E.	5	1 0	100 T	18·81	153
D Bishop Auckland (Mt. Pleasant)	E. Lingford, Esq.	6	3 0	408	21·12	150
,, ,, (The Castle)	Mr. J. Larkin	5	1 0	300	20·39	140
D Witton-le-Wear (Witton Tower)	W. R. I. Hopkins, Esq.	5	0 8	420 T	23·10	146
West Hartlepool (Lynn Street)	Mr. H. Lamb	5	30 0	45	15·16	154
D Hartlepool (Heugh Lighthouse)	W. Belk, Esq., C.E.	5	0 6	34 T	15·16	176
D ,, (Hurworth Burn)	T. Fenwick, Esq., C.E.	5	0 7	360	22·80	135
D ,, (Hart Reservoir)	,, ,, ,,	8	0 9	164	15·86	129
D† Wolsingham	Mr. A. Mitchell	5	1 0	464 T	27·90	188
D Tow Law	Rev. T. E. Espin	5	1 0	990	25·13	191

DIVISION X.—NORTHERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	DURHAM—(*con.*)						
	Durham Observatory	The Meteor. Council	12	4 0	340	20·11	183
D	,, (Ushaw College)	Rev. J. Corbishley	5	0 10	600 ⅄	23·15	168
†	Weardale W.W. (Waskerley 6)	R. Askwith, Esq., C.E.	8	4 2	1229 ⅄	23·55	...
	,, ,, (,, 3)	,, ,, ,,	8	4 6	1433 ⅄	23·70	...
†	,, ,, (,, 4)	,, ,, ,,	8	4 7	1321 ⅄	23·36	...
†	,, ,, (,, 5)	,, ,, ,,	8	4 2	1244 ⅄	23·29	...
†	,, ,, (,, 2)	,, ,, ,,	8	4 5	1367 ⅄	24·46	...
†	,, ,, (,, 1)	,, ,, ,,	8	4 4	1317 ⅄	23·34	...
D	Seaham Harbour Cemetery	Mr. R. Leith	8	1 6	150	19·21	198
	,, Vicarage	Rev. A. Bethune	5	0 6	80 ⊺	19·15	...
	,, Hall	Mr. R. Draper	5	1 0	106 ⅄	18·98	...
	Houghton-le-Spring (Myre Hall)	D. Balfour, Esq., C.E	5	1 0	261 ⊺	21·66	133
	Shotley Bridge	Mr. J. Coulson	5	0 8	345 ⊺	25·45	...
D	Sunderland (W. Hendon Ho) No. 5	T. W. Backhouse, Esq.	5	1 0	130 ⅄	19·58	165
	,, (,, ,, ,) No. 6	,, ,, ,,	5	1 0	130 ⅄	19·87	...
D	,, (Willow Bank Lodge)	C. Stamp, Esq.	5	2 6	100	22·18	195
D	Gateshead (Eighton Cottage)	Miss Favell	5	3 1	515	22·85	167
D	,, (Southdene Tower)	R. C. Clephan, Esq.	5	0 9	150	21·52	154
D	Ryton-on-Tyne	J. W. Smith, Esq., M.D.	5	1 6	...	23·71	165
	NORTHUMBERLAND.						
D	Haltwhistle (Shaft Hl Herdley Bk)	Mr. R. Hetherington	5	0 9	626 ⊺	34·92	139
D	,, (Unthank Hall)	Rev. Dixon Brown	5	0 9	380 ⊺	29·47	177
D	Ovingham (W. Tyne Colliery)	J. K. Guthrie, Esq., C.E.	8	2 0	179 ⅄	25·27	187
D	Haydon Br. (Beltingham)	Rev. G. Reed	5	2 8	340 ⊺	32·98	194
D	Corbridge (Howden Dene)	J. H. Straker, Esq.	5	0 10	200	22·02	143
D	Newcastle (Clifton Road)	R. Foster, Esq.	8	1 6	314 ⅄	21·60	161
	,, (,, ,) M	,, ,, ,,	5	1 0	314 ⅄	21·45	...
	,, (Gladstone Terrace)	W. Smurthwaite, Esq.	2	6 0	156 ⊺	22·17	105
	,, (Portland Road)	Mr. T. Bone	4	9 6	...	20·85	107
D	,, (Town Moor)	A. Wright, Esq.	5	2 0	201 ⅄	20·65	163
D	,, (Wellburn, Jesmond)	W. H. Holmes, Esq.	5	1 6	161 ⊺	21·86	156
	North Shields (Post Office)	The Meteor. Council	8	1 4	100	19·62	155
D	,, (Tynemouth)	P. J. Messent, Esq., C.E.	5	1 8	65 ⅄	18·34	176
Newcastle and Gateshead W. W.	Whittle Dean	G. Smith, Esq.	10	...	...	20·64	...
	Swinburn (Woodford)	,, ,, ,,	10	0 6	500 ⅄	27·76	...
	North Tyne (Green Crag)	,, ,, ,,	10	0 6	800 ⅄	26·43	...
	,, ,, Valley	,, ,, ,,	10	0 6	300 ⅄	24·40	...
	Hallington	,, ,, ,,	10	0 6	469 ⅄	23·59	...
	,, (Fawcett)	,, ,, ,,	10	0 6	563 ⅄	23·96	...
	Gunnerton Burn (Camphill)	,, ,, ,,	10	0 6	676 ⅄	25·99	...
D	Morpeth (Meldon Park)	Mr. J. Finlay	5	1 0	350	21·84	152
D	,, (Bothalhaugh Garden)	Hon. & Rev. W. C. Ellis	5	0 10	35 ?	19·87	177
	,, (,, ,,)M	,, ,, ,, ,,	5	0 10	...	19·10	...
D	,, (,, Lawn)	,, ,, ,, ,,	5	0 10	130	19·18	173
	,, (,, ,,) M	,, ,, ,, ,,	5	0 10	135	18·24	...
D	Scots Gap (Rothley Lake)	J. Daglish, Esq.	5	0 6	665 ⊺	25·18	206
†	Redesdale (Horsley)	G. Smith, Esq.	8	1 0	600	26·98	...

DIVISION X.—NORTHERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
NORTHUMBERLAND—(*con.*)						
Rothbury (Cragside)	Lord Armstrong, C.B..	8	1 0	400 ⅄	24·01	161
†Redewater (Blakehope)	G. Smith, Esq.	8	1 1	830	26·48	...
† ,, (Ellis Crag)	,, ,,	8	1 0	1200	31·75	...
† ,, (Chattlehope)	,, ,,	8	1 0	830	32·07	...
† ,, (Catcleugh)	,, ,,	8	1 0	794	30·15	...
D Alwinton (Harbottle Castle)	Mr. R. Elliott	5	1 0	500	26·99	156
,, (Biddleston Hall)	P. Dodds, Esq.	5	1 0	820 T	27·53	147
Alnwick Castle	The Meteor. Council	5	0 4	178	21·68	193
,, (Glanton Pyke)	F. W Collingwood Esq.	8	4 4	517	21·60	...
D Howick Hall	Rt.Hon.Earl Grey,K.G.	8	0 10	121 ⅄	20·62	173
Ilderton (Lilburn Tower)	E. J. Collingwood, Esq.	10	6 0	300 T	18·91	...
Cheviot (Broadstruther) M	G. P. Hughes, Esq.	8	1 8	1694	54·50	...
Wooler	Dr. R. Walker	5	0 10	176 T	22·87	...
D Bamburgh	Mr. W. C. Good	5	1 0	75 L	18·78	147
D Pawston [Coldstream]	B. P. Selby, Esq.	8	1 0	328 T	25·82	198
Wooler (Milfield)	G. Grey, Esq.	5	0 6	215 ⅄	23·01	...
,, (,, Hill)	,, ,,	5	3 0	695 ⅄	*18·79*	...
D Ancroft (Cheswick)	Gen. Sir W. Crossman.	5	0 8	100 ⅄	20·57	155
CUMBERLAND.						
D Millom (Leyfield)	Cedric Vaughan, Esq CE	5	1 2	81	43·33	198
D Kirksanton (The Croft)	J. E. Brockbank, Esq..	...	...	...	31·75	180
D†Duddon Valley (Ulpha Vic.)	Rev. W. Kewley	5	1 3	175	74·99	219
D Eskdale	Rev. R. H. Snape	5	1 6	150?	62·25	218
D Seascale (Whinthwaite)	Dr. Hellon	5	1 0	52 ⅄	34·05	185
Braystones	W. H. Watson, Esq.	10	3 6	36	34·17	...
Scawfell Pike M	G.J.Symons, Esq.F.R.S.	4	0 6	3200	112·75	...
Sprinkling Tarn M	,, ,,	4	0 6	1985	129·10	...
Wastdale Head M	,, ,,	4	0 6	204 T	86·63	...
Styehead Tarn M	,, ,,	4	0 6	1472 T	123·96	...
†The Stye M	,, ,,	4	0 6	1077 T	166·55	...
† ,, ,, ...*New S.E. gauge* M	,, ,,	4	1 0	1077 T	165·28	...
Gable Hawes M	,, ,,	8	...	1077 T	81·31	...
Egremont	J. Sherwen, Jr., Esq.	5	1 0	170 T	45·31	207
†Seathwaite M	G.J.Symons, Esq., F.R.S	4	0 6	422 T	139·30	...
D† ,,	,, ,, ,,	5	1 0	423 T	140·66	221
,,	The Royal Meteor. Soc.	5	0 10	422 T	138·44	221
*† ,, M	John Marshall, Esq.	5	1 0	420 T	133·58	...
Ullscarf M	G. H. Hill, Esq., C.E..	7	1 0	2100 T	117·40	...
D Whitehaven (The Flosh, Cleator)	D.Ainsworth, Esq. M.P.	5	1 11	208 T	48·22	166
†Helvellyn (Birkside) M	G. H. Hill, Esq., C.E..	7	1 0	1900 T	73·10	...
†Wythburn M	,, ,, ,,	7	1 0	580 T	86·00	...
D Borrowdale Vicarage	Rev. A. J. Heelis	5	1 0	330 T	102·42	199
D†Buttermere (Hassness)	Mr. S. Stewart	5	1 0	355	102·55	217
D†Borrowdale (Grange)	Mr. Threlkeld	5	0 9	271 T	84·84	206
Armboth	G. H. Hill, Esq., C.E..	7	1 0	550 T	68·50	...
,, Fells (The Pewitts)	,, ,, ,,	7	1 0	1650 T	83·50	...
Helvellyn (Whiteside)	,, ,, ,,	7	1 0	2100 T	64·10	...

DIVISION X.—NORTHERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground. ft.	in.	Height above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
CUMBERLAND—(*con.*)							
D† Whitehaven (Irish Street)	Dr. I'Anson	5	1	1	21 ⅄	39·11	146
D† Keswick (Barrow House)	Miss Langton	8	0	6	282 ⅄	70·33	219
Ullswater (Hallsteads)	the late A. Marshall, Esq	5	2	0	497 T	44·31	...
Keswick (Deer Close)	John Marshall, Esq.	7	1	9	300 T	57·67	214
† ,, (Derwent Island) ...*old*	,, ,, ,,	5	0	7	280 T	50·50	215
,, (,, ,,) ...*new*	,, ,, ,,	5	0	6	290	58·15	213
D† ,, (Bank)	J. F. Crosthwaite, Esq.	8	6	4	270 T	55·66	209
† ,, (,,)	,, ,, ,, ...	5	1	0	265 T	54·18	209
D ,, (The Beeches)	T. Paulin, Esq.	5	1	0	396	64·27	203
D† ,, (Shu-le-crow)	A. Mitchell Dawson, Esq.	5	0	7	296 T	58·94	202
D Cockermouth (Whinfell Hall)	W. Robinson, Esq.	5	2	0	265 ⅄	49·19	216
D ,, (Brandlingill)	Col. F. R. Sewell	5	1	0	320 ⅄	51·35	205
Bassenthwaite (Mire House)	Lady Jane Spedding	5	0	6	300 T	44·60	168
D ,, (Bassenfell)	Mrs. S. G. Rathbone	8	1	0	384	37·61	193
D† Cockermouth (Higham)	Miss Hoskins	5	1	0	478 ⅄	42·10	201
D ,, (Broughton Grange)	G. S. Wilson, Esq.	5	1	3	209 ⅄	39·10	188
Penrith (Culgaith Vic.)	Rev. G. W. Atkinson	5	0	10	500 T	28·20	...
,, (Nandana)	G. Varty Smith, Esq.	5	4	0	650 T	28·22	181
† ,, (Fell Lane, Fir Bank)	T. Lester, Esq.	5	1	0	575 T	29·45	173
,, (Greystoke)	A. Tremayne Buller, Esq	5	...		700	39·09	...
D† ,, (Newton Reigny)	T. G. Benn, Esq.	8	1	0	580 ⅄	32·93	180
† ,, (,, ,,)...M	,, ,, ,, ...	8	1	0	580 ⅄	32·93	...
D ,, (Edenhall Vicarage)	B. W. Lovejoy, Esq.	5	1	4	310 T	30·80	195
,, (Kirkland Vicarage)	Rev. A. Edwards	5	1	0	640	35·19	...
D† Blencowe School	T. Fawcett, Esq.	8	0	9	601 B	35·41	208
Maryport (Netherhall)	H. P. Senhouse, Esq.	8	0	6	27 ⅄	30·76	122
Skelton Rectory	Rev. J. Sharpe Ostle	5	0	8	780	30·70	...
D Kirkoswald (Melmerby)	Rev. A. C. Pittar	5	0	8	...	31·22	205
D Mealsgate (Uldale Rectory)	Rev. J. Greenwood	5	1	4	550	43·66	171
D Aspatria (Brayton Hall)	Mr. W. Stewart	8	2	0	200	43·13	190
D ,, (Brookfield)	M. Lidbetter, Esq.	5	0	9	124 ⅄	35·15	214
D Carlisle (Rose Castle)	Miss E. W. Bardsley	8	...		...	30·91	183
,, (Wreay Vicarage)	Rev. A. R. Hall	5	2	0	310 T	31·07	212
† ,, (Cemetery)	S. Cartmell, Esq.	8	3	0	114 ⅄	29·94	189
,, (Rickerby House)	M. MacInnes, Esq., M.P.	8	1	0	50 T	26·84	...
D ,, (Burgh-by-Sands)	Rev. J. Baker	5	0	11	...	28·90	131
D ,, (Castletown)	Mr. A. Smith	5	1	6	...	27·88	160
,, (Scaleby)	The Royal Meteor. Soc.	5	1	0	112	32·49	218
D Brampton (Denton House)	Mr. J. Charlton	5	1	5	541 ⅄	30·24	208
,, (,, ,,) ...M	,, ,,	5	1	2	541 ⅄	29·53	...
WESTMORELAND.							
Witherslack (Halecote)	Rev. Canon Cross	5	1	0	100 T	46·82	191
D Kendal (Natland Park)	Mrs. Shipley	5	1	0	195 T	43·22	191
,, (Hill Top)	C. J. Holdsworth, Esq.	5	1	0	560 B	46·63	195
D ,, (Kent Terrace)	R. J. Nelson, Esq.	5	1	6	146 T	45·79	202
D ,, (Underfell)	W. H. Crewdson, Esq.	8	1	0	300 B	46·16	188
,, (,,) ...M	,, ,, ,,	8	1	0	300 B	43·39	...

DIVISION X.—NORTHERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground.	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft in.	feet.	inches.	
WESTMORELAND—(*con.*)						
D Kendal (Hawesmead)	G. F. Braithwaite, Esq.	8	0 6	175 ⅄	45·60	195
D Bowness (Fallbarrow)	H. E. Rawson, Esq....	8	1 0	135 T	57·63	203
D Windermere (Woodland Terrace)	Rev. T. Mackereth ...	5	6 5	376	52·41	210
Longsleddale	Mrs. Burrows	5	6 0	512 T	67·49	201
Ambleside (Skelwith Bridge)	S. A. Marshall, Esq....	5	...	...	76·43	218
Little Langdale (Fell Foot) ...M	,, ,, ,, ...	5	2 2	380	108·75	...
D† Ambleside (Nook Cottage)	Mr. E. Hird	5	1 0	227 ⅄	70·46	217
† ,, (Lesketh Howe)	F. M. T. Jones, Esq....	5	2 6	175 T	72·10	192
D Elterwater (Birch Hill)	Capt. Robinson	5	1 1	243	90·26	207
D Dungeon Ghyll	S. A. Marshall, Esq. ...	5	0 5	310	109·89	218
,, ,, ...M	,, ,, ,, ...	5	1 6	311	108·90	...
Mickleden ...M	,, ,, ,, ...	5	1 6	490	126·45	...
D† Grasmere (High Close)	E. B. W. Balme, Esq...	8	0 9	553 T	81·12	215
D ,, (Pavement End)	T. A. Green, Esq.	5	1 0	214 T	85·39	224
D Ravenstonedale (Brownber)	J. Fothergill, Esq.	5	3 0	826 T	39·80	176
Orton Vicarage	Rev. E. Holme	5	3 6	770 T	48·08	174
D† Kirkby Stephen	Mrs. Mason	5	1 0	574 T	43·20	201
Fairfield ... M	T. A. Green, Esq.	5	1 0	2860 T	79·97	...
,, ... M	,, ,, ,, ...	8	1 0	2860 T	82·89	...
Asby (Town Head)	Mr. J. Clemmet	5	1 0	685 T	38·97	195
Grisedale (Ruthwaite Lodge) M	Mr. A. Milne	8	1 6	1750	92·87	...
D† Patterdale Hall	,, ,,	7	1 3	490 T	77·80	216
† ,, (Greenside Mine)	Mr. T. Taylor	7	1 6	1000 T	80·23	...
D† Appleby	Dr. Armstrong	5	1 0	442 ⅄	30·36	200
D ,, (Castle Bank)	C. R. Rivington, Esq...	5	1 2	440 T	32·09	213
Ullswater (Swarth Fell) ...M	G.J.Symons.Esq. F.R.S.	5	1 3	1000 T	47·10	...
Lowther Castle [Penrith]	Mr. F. Clarke	8	3 6	750 T	37·28	176

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

MONMOUTH.						
D† Marshfield (Llwynarthan)	F. G. Evans, Esq.	5	1 1	72 B	32·45	167
D Portskewett (Sudbrook)	T. D. Roberts, Esq., C.E.	8	1 6	33 T	24·71	142
D ,, (Caldicot Hall)	Rev. E. T. Williams...	9	1 3	40	29·78	129
D Newport (Clytha Park)	J. H. Canning, Esq. ...	5	1 6	100 T	30·03	156
,, (Ynys-y-bro)	The Meteor. Council ...	...	...	...	31·55	156
D Chepstow (Shirenewton Hall) ...	E. J. Lowe, Esq., F.R.S.	8	1 0	531 T	33·41	159
D ,, (The Mount)	G. M. Smith, Esq.	5	1 0	150 T	26·06	152
D Llanfrechfa Grange	F. J. Mitchell, Esq. ...	5	4 0	326 ⅄	32·74	147
Tredunnock	Rev. C. T. Salusbury...	5	2 3	170 ⅄	29·32	159
D Chepstow (Piercefield Park)	H. Clay, Esq.	5	1 6	270	27·62	151
D ,, (Itton Court)	E. Curre, Esq.	8	4 0	390	31·55	181
Abersychan	E. Cooke, Esq.	5	1 0	620 ⅄	43·40	...
,, (The Hawthorns)...	J. W. Mulligan, Esq, MD	5	1 0	755 T	44·75	192
D Tredegar (The Willows)	G. A. Brown, Esq. ...	8	1 0	1024 T	51·64	164
Blaenavon Gas Works	C. White, Esq.	5	0 9	980	35·23	...
D Monmouth (The Hendre)	The Hon. H. A. Rolls..	8	1 0	176 T	25·45	177

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground.	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
MONMOUTH—(*con.*)						
Abergavenny (Larchfield)	Dr. Glendinning	5	1 0	240 B	30·80	163
D ,, (Dyne House)	Dr. Steel.....	5	1 2	220 T	33·39	157
D ,, (The Chain).....	W. Baker Gabb, Esq...	5	1 0	250	34·39	181
D Llantilio Court	Sir H. M. Jackson, Bt.	5	0 10	207 R	27·17	111
D Llanvihangel Court	Col. Sturt	5	2 4	508 R	31·23	171
,, ,, ...M	,, ,, ...	5	2 4	508 R	31·91	...
,, Crucorney ..... M	Mr. J. Winfield.....	5	1 0	489	30·24	...
D Monmouth (Pentwyn)	Rev. J. T. Harding ...	5	1 0	191 B	22·38	123
GLAMORGAN.						
* Cowbridge (Fonmon Castle).. ...	O. H. Jones, Esq.	8	1 2	130	38·85	152
D Barry & Cadoxton W.W. (Biglis)	E. W. Waite, Esq., C.E.	5	1 0	20	29·80	154
,, ,, ,, (Pencoedtre)	,, ,, ,, ...	...	...	200	34·49	...
Cardiff (Cogan Pill, Landough)..	J.A.B.Williams,EsqCE	5	1 0	122 R	30·97	146
,, (Sanatorium).....	Dr. Walford	...	...	...	33·91	166
D ,, Castle	Mr. A. Pettigrew	5	1 0	38 R	33·66	162
D Porthcawl (The Rest)	G. Evans, Esq.	5	1 0	60	31·90	143
Cowbridge (Ash Hall)	D. Owen, Esq.	8	1 0	315 R	41·22	164
D Cardiff (Ely)	J.A.B.Williams,EsqCE	8	1 0	53 R	36·72	165
D ,, (Lisvane)	,, ,, ,,	5	1 0	136 R	31·65	159
,, (New Filters, Heath)....	,, ,, ,,	5	1 0	132	36·33	157
,, (Llanishen Res)	,, ,, ,,	5	1 0	155	33·82	157
Gower (Penmaen)	Miss Bostock	5	1 0	300 T	37·28	140
D Oystermouth (Newton).....	Rev. S. Jones.....	5	0 9	279 T	36·91	165
D Swansea (Sketty)	T. T. Wood, Esq.	5	1 0	281 R	41·02	170
D ,, (South Dock Lock).....	W. Law, Esq.	12	14 9	40	37·65	171
D Pontypridd (The Reservoir).....	W. Jones Esq.	5	1 0	300	50·85	158
Morriston	J. Naysmith, Esq.....	5	1 0	53 R	44·04	162
D Neath	E.C. Pole, Esq.	5	1 0	204 R	44·46	174
D ,, (Fairy Land)	E. Ll. Green, Esq. ...	5	1 9	170 B	44·28	181
D† ,, (Glyncorrwg)	T. F. Brown, Esq., C.E.	5	4 6	717 B	80·51	185
D Mountain Ash (Maesydderwen)..	M. Morgan, Esq.	5	1 0	483 R	49·97	175
Treherbert	Sir W. T. Lewis, C.E...	5	1 0	670	75·89	168
D† ,, (Tyn-y-waun)	F. J. Baynes, Esq.....	5	1 0	800	75·12	177
† ,, (,, ,, ,,) ... . M	,, ,, ,, ...	5	1 0	800	76·39	...
D Gorseinon (Penllergaer).....	Sir J.T.D.Llewelyn,Bt.	5	3 0	240 T	43·69	163
D Rhondda (Castell-nos Res.)	W. Jones, Esq.	5	1 0	1110	49·46	151
D Aberdare (Cwmaman)	J. Daglish, Esq.....	5	1 6	740 T	58·69	152
,, (The Mardy)	Sir W. T. Lewis, C.E...	5	2 2	431 R	52·83	152
D† ,, (Abernant).....	Evan Jones, Esq.	5	5 3	425	51·45	157
D Felindre (Lliw Reservoir).....	R. H. Wyrill, Esq., C.E.	8	1 3	426 T	47·07	169
D Merthyr Tydfil (Plymouth Wks.)	T. H. Bailey, Esq. ...	5	0 6	497	49·01	156
D Dowlais (Gwernllwyn)	R. C. Harrison, Esq....	5	1 9	1035 R	50·26	175
D ,, (Cwm Bargoed)	G. A. Lundie, Esq., C.E.	5	1 0	1237 R	35·67	114
D Ystalyfera (Tan-yr-allt)	D. H. Lewis, Esq.....	8	1 6	300 L	55·93	133
CARMARTHEN.						
D Llanelly (Old Market Place) ...	G. Watkeys, Esq., C.E.	5	10 0	35 T	35·55	156
D ,, (Cwmlliedi W.W.).....	,, ,, ,, ...	5	3 0	240 R	41·60	186

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground.	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	ft. in.	inches.	
CARMARTHEN—(*con.*)						
Tegfynydd [Narberth]	H. S. Morgan, Esq.	5	1 0	158 ⅄	40·37	132
†Carmarthen (Joint Co. Asylum)	late Dr. Hearder	8	1 0	189 ⅄	40·98	177
Llandilo (Dynevor Castle)	Rt. Hon. Lord Dynevor	8	1 0	202 T	45·61	164
D Llandovery	J. Watkins, Esq.	5	1 0	217 T	40·01	208
PEMBROKE.						
Pembroke (Stackpole Court)	Rt. Hon. Earl of Cawdor	6	1 6	60 ⅄	31·21	159
St. Ann's Head	The Meteor. Council	8	0 8	150	26·72	181
D Haverfordwest (High Street)	E. P. Phillips, Esq.	5	1 0	95 T	35·55	174
D St. Bride's Bay (Hilton)	Col. E. P. Maltby	5	1 0	250 T	26·74	170
D Clarbeston (Penty Park)	Capt. F. Lloyd Philipps	5	1 0	320	37·07	185
D St. David's	Dr. W. P. Propert	5	1 0	216	26·35	173
D Newport (The Castle)	Genl. C. S. Sturt	8	1 2	240	35·48	161
D Castle Malgwyn [Llechryd]	Mr. W. Ward	5	1 0	...	33·80	131
CARDIGAN.						
D Troedyraur Rectory	Rev. R. J. Lloyd	5	1 0	140?	30·48	167
D Tregaron Vicarage	Rev. T. Phillips	5	...	...	46·32	194
D Aberaeron (Dolaeron)	T. H. Maddy, Esq.	5	1 11	50	29·23	180
D Strata Florida (Hafod)	T. J. Waddingham, Esq	5	1 0	580	49·08	199
Aberystwith (Castle Grounds)	A. Thomas, Esq.	8	1 0	60	24·89	174
D ,, (Gogerddan)	Sir Pryse Pryse, Bart.	5	1 0	80 B	40·60	162
BRECKNOCK.						
D†Nanthir Reservoir [Aberdare]	O. Williams, Esq., C.E.	5	1 0	860 ⅄	52·13	200
,, ,, [,,] M	,, ,, ,,	5	1 0	860 ⅄	52·28	...
D Colbren (Penwyllt)	Mr. G. Palmer	5	1 0	1108	63·07	157
D†Taff Fechan (Pentwyn Res.)	T. F. Harvey, Esq., C.E.	5	1 0	1120	54·98	201
† ,, ,, (,, ,,)...M	,, ,, ,,	5	1 0	1120	55·31	...
†Cardiff W W (Cwm Taff Fawr No 5)	J A B Williams, Esq. C.E.	5	1 0	1143 ⅄	56·65	...
† ,, ,, (,, ,, ,, No 1) M	,, ,, ,,	5	1 0	2350 T	60·27	...
,, ,, (Cantreff Res.)	,, ,, ,,	5	1 0	1120	55·21	201
,, ,, (Cwm Taff Fawr No 6)	,, ,, ,,	5	1 0	1328 ⅄	67·79	202
D†Taff Fechan (Neuadd Res.)	T. F. Harvey, Esq., C.E.	5	1 0	1460	57·36	197
† ,, ,, (,, ,,) ...M	,, ,, ,,	5	1 0	1460	57·25	...
Crickhowel (Glanusk Park)	Sir J. R Bailey, Bt.	5	1 0	290	31·32	158
,, (Gwernvale)	Mrs. Lloyd	5	1 0	373 ⅄	33·34	179
,, (Penmyarth)	S. H. Cowper Coles, Esq.	5	1 0	330	32·57	138
Brecknock (Cantreff Rect.)	Rev. J. J. Evans	5	1 0	630 T	42·57	...
D ,, (Llandefaelog-fach)	Rev. W. Williams	5	1 0	660	37·88	192
D Hay (Gwernyfed Park)	Major Wood	5	1 0	350 T	29·18	189
D Builth (Abergwessin Vic.)	Rev. J. Jones	5	1 0	904 ⅄	58·59	207
Nant-y-stalwyn Hill ...M	,, ,, ,,	5	1 0	...	64·76	...
Newbridge (Llysdinam)	Mrs. Lister Venables	5	1 3	640 T	29·81	177

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground. ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
	RADNOR.							
	Glasbury (Woodlands)	A. Battiscombe, Esq....	5	1	0	300 T	28·09	168
D	Disserth (Glanhowey)	Rev. A. W. Powell ...	5	1	0	700 ?	34·29	223
D	Llandrindod	Ven. Arch. de Winton.	5	1	0	700	33·22	171
D	New Radnor (Downton)	Col. Pearson	5	0	8	712	36·12	183
D	,, ,, (Ednol)	Mr. W. Jones	5	1	0	950	38·27	174
	Llandegley (Gwern-i-Arglwydd)	Mr. J. Campbell	5	2	0	1000	34·47	173
D	Pen-y-bont.....	Mr. J. Hamer.....	5	3	6	788	32·30	167
	Rhayader (Nant-y-car) ..... M	G.J. Symons, Esq., FRS	5	1	0	1545	73·50	...
D	,, (Nantgwillt) ...*old g.*	R. L. Lloyd, Esq.	5	1	0	768 ⅄	53·88	218
D	,, (,,) *new g...*	,, ,, ,, ...	5	1	0	764 ⅄	56·71	218
	,, (Bwlchyrhendre) ...M	G.J. Symons, Esq., FRS	5	1	0	1585	60·15	...
D	,, (Claerwen)	,, ,, ,,	5	1	0	1250	54·10	169
	,, (Pryddellau) ..... M	,, ,, ,,	5	1	0	1710	61·60	...
D	,, (Abergwngy)	,, ,, ,,	5	1	0	1200	58·40	163
	MONTGOMERY.							
†	Llangurig (Esgair Clochfan) M	G. J. Symons, Esq., FRS	5	1	2	1330	54·50	...
†	,, (Ystrad-olwyn-fawr) ...M	,, ,, ,, ,,	8	1	0	950	47·30	...
D	Newtown (Dolfor)	W. B. Pugh, Esq.....	5	2	6	1027 T	30·96	174
	Churchstoke (Mellington Hall) ..	P. Wright, Esq.	5	1	6	540 ⅄	25·75	158
	,, (,, ,,)M	,, ,, ,, ...	5	1	6	540 ⅄	25·53	...
D	Welshpool (Park Lane).....	Mrs. Hawksworth	5	1	0	280	23·33	110
	,, (Llwynderw)	Col. Huddleston	...	...		...	25·12	...
D	,, (Pool Quay Vic.).....	Rev. R. J. Roberts ...	5	1	0	230	22·87	169
	Garthbibio (Bwlch Tomlyd).....	G.J.Symons.Esq., FRS.	5	1	2	1370	97·45	...
D	Lake Vyrnwy.....	E. D. Marten, Esq.C.E.	5	0	7	770	50·26	191
	FLINT.							
D	Hawarden	Dr. Burlingham	5	1	0	245 T	23·15	178
	,, ...	M. S. & L. R. Co.	9	3	6	35	18·69	159
D†	Flint (Soughton Hall, Northop).	J. Scott Bankes, Esq...	5	1	0	418	25·15	175
	St. Asaph (Nantllys).....	P. P. Pennant, Esq. ...	5	1	0	173 ⅄	21·50	...
D†	Halkyn	Capt. Williams	5	1	3	895 ⅄	25·13	169
D	St. Asaph (Bodelwyddan Castle).	Mr. W. Brewster	5	0	9	222	25·28	177
D	Holywell (Bagillt).....	H. T. Barker, Esq. ...	5	1	6	20 T	22·82	166
D	Rhyl (Sedgley House)	W. T. Girdlestone, Esq.	5	2	6	21 ⅄	19·52	158
D	Prestatyn (Edlestone House) ...	T. J. Scott, Esq.	5	0	6	15	22·51	165
	DENBIGH.							
	Chirk (Brynkinalt)	Rt. Hon. Lord Trevor..	5	1	0	326	26·52	...
D	Ruabon (Wynnstay).....	Mr. Middleton	5	1	6	484 ⅄	28·87	180
D	Llangollen (Plas Berwyn).....	Col. Tottenham	5	0	5	440	34·45	152
	Cerrig-y-druidion	C. S. Mainwaring, Esq.	5	1	0	905 T	?27·23	179
	Wrexham (Pack Saddle Res.) ...	F. Storr, Esq.	5	0	9	370 ⅄	26·26	182
	,, (Cae Llwyd Res.) ...	,, ,, ...	8	0	9	918 ⅄	31·37	157
	,, (,, ,, ,,) ...	,, ,, ...	5	0	9	918 ⅄	30·58	157
D	,, (Is-y-coed)	Rev. L. Wickham	8	1	2	110 T	21·08	...
	,, (Brymbo)	J. H. Darby, Esq.	5	1	0	675	22·71	110

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground.	Height above Sea Level	Depth of Rain. 1893	Days on which '01 or more fell
			ft. in.	feet.	inches.	
DENBIGH—(*con.*)						
Gresford	A. H. Evans, Esq.	5	0 3	350	24·25	162
D Rosset (Trevalyn Hall)	Capt. Griffith Boscawen.	5	1 0	58 R	21·88	166
Nantglyn (Pant-y-maen)	W. Barker Esq.	8	1 0	1320 T	46·22	...
D Llangerniew (Hafodunos)	H. R. Sandbach, Esq.	5	1 0	512 T	34·87	174
Penbedw [Nannerch]	Mr. W. McMurray	8	0 6	650 T	27·39	...
D Denbigh (Garn)	W. D. W. Griffith, Esq.	5	1 0	447 T	25·47	165
Dolben [St. Asaph]	T G. Dixon, Esq	5	1 2	...	25·97	193
Trefnant (Maes Elwy)	Major Birch	5	2 0	200 T	22·65	...
D Colwyn Bay (Nant-y-Glyn)	A. O. Walker, Esq.	5	1 0	180 R	25·59	159
,, (Bryn Euryn)	Mr. T. Hutchings	5	1 0	125 T	27·26	179
MERIONETH.						
†Dolgelly (Werngoch)	O. Hill, Esq.	5	1 6	465 T	58·63	...
D Bala (Eryl Arran)	Mrs. Wilson	8	1 0	590 T	46·58	152
D Llanderfel (Palé Gardens)	Mr. T. Ruddy	8	1 0	606 R	40·32	201
Arenig (Bodrennig)	E. Jones, Esq.	5	1 0	1100 T	66·80	206
Rhiwbryfdir = Oakley Quarries	Mr. R. Roberts	5	10 0	1100	89·46	158
D Corwen (Rhug Gardens)	Mr. J. Bennett	5	1 0	500	34·08	176
CARNARVON.						
*Llanystumdwy (Talarvor)	Dr. J. Roberts	5	2 0	49	30·85	168
Llandwrog (Glynllivan Park)	Hon. F. G. Wynn	5	1 0	100	34·82	...
,, (,, Garden)	,, ,,	5	1 0	170	37·72	...
,, (,, Fort)	,, ,,	8	1 0	180	34·93	...
,, (Bodfean)	,, ,,	5	1 0	...	35·50	...
Pen-y-gwryd Hotel	Mr. G. Owen	5	...	...	73·47	...
D Llanberis (Glyn Padarn)	Major Allen	6	6 0	370	55·85	164
Capel Curig (Lake Cowlyd)	T. B. Farrington, Esq.	8	1 3	1168	68·20	146
Carnarvon (Belan Fort)	Hon. F. G. Wynn	5	1 0	12	29·85	...
D ,, (Cocksidia)	J. Jackson, Esq.	5	1 0	120	34·43	178
,, (North Road)	W. T. Morgan, Esq. M.D.	5	1 0	60	30·42	...
Llanbedr-y-Cennin	E. P. Stephenson Esq. C.E	8	1 0	510 R	54·00	153
,, ,, (Llyndulyn)	,, ,, ,,	8	1 6	1622 T	90·80	153
Llanfairfechan	R. Luck, Esq.	5	0 8	150 B	33·13	169
D†Llandudno (Warwick House)	Dr. Nicol	8	0 8	99 R	26·60	173
ANGLESEA.						
D Llangadwaladr (Bodorgan)	Mr. J. Gray	8	3 6	...	31·64	170
Penmynydd Vicarage	Rev. H. D. Owen	...	...	300	29·05	...
Holyhead	The Meteor. Council	8	...	...	24·03	183
LlanerchymeddLlwydiarthEsgob	T. Prichard, Esq.	5	1 0	112 L	31·30	198
ISLE OF MAN.						
Castletown (Langness)	Bd. of Northern Lights	...	...	...	23·68	...
Derbyhaven	A. W. Moore, Esq.	5	1 0	20	20·64	...
D Douglas (Derby Square)	P. Killey, Esq.	5	1 1	78	29·21	189
D ,, (Victoria Road)	H. Story, Esq.	5	0 9	160 L	36·50	195
,, (Cronkbourne)	A. W. Moore, Esq.	8	0 10	138 R	34·88	195

DIVISION XI.—MONMOUTH, WALES AND THE ISLANDS—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground. ft.	in.	Height above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
ISLE OF MAN—(*con.*)							
Douglas (Clypse, Onchan)	A. W. Moore, Esq.	8	1	0	439 T	35·80	201
The Dhoon	,, ,,	5	1	0	450 T	46·46	...
Bishops Court	,, ,,	...	...		...	30·03	149
Ramsey	,, ,,	8	1	3	18	35·20	...
Point of Ayre	Bd. of Northern Lights	...	...		...	21·07	103
ISLES OF SCILLY.							
St. Mary's	The Meteor. Council	8	1	6	77 L	26·50	168
D†Tresco Abbey	T. A. D. Smith, Esq.	11	3	0	40	29·54	169
JERSEY.							
D St. Helier (Maison St. Louis)	Rev. C. Noury	...	0	4	135	33·79	143
St. Aubins	The Meteor. Council	8	1	0	...	29·70	187
St. Saviours (The Ainges)	W. A. Gunner, Esq.	5	1	3	250 B	30·08	166
GUERNSEY.							
D St. Peter Port (Beaulieu)	A. Collenette, Esq.	5	1	0	180 L	30·99	184
D Villa Carey	Dr. Carey	8	1	7	180	27·87	175

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground.	Rain Gauge. Height Above SeaLevel	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
WIGTON.						
Mull of Galloway	Bd. of Northern Lights	...	...	...	24·92	160
D Garliestown (Galloway Ho.)	Mr. J. Day	5	4 6	20 ?	32·26	160
D Stoneykirk (Ardwell House)	Sir M.J.Stewart,Bt.MP	8	5 0	125	32·69	124
D Newton Stewart (Corsbie)	The Hon. Mrs. Stewart	6	0 10	100	39·12	179
Loch Ryan	Bd. of Northern Lights	...	...	...	32·10	113
Corsewall	,, ,, ,,	...	3 4	22 ?	25·08	110
KIRKCUDBRIGHT.						
Little Ross	Bd. of Northern Lights	...	3 3	130 ?	22·82	131
D Kirkcudbright (Senwick)	A. J. Corrie, Esq.	5	1 0	113 ⅄	33·13	199
,, (,,) M	,, ,, ,,	5	1 0	113 ⅄	32·63	...
St. Mary's Isle	Mr. Browning	5	0 4	...	38·03	...
Auchencairn (Torr House)	W. Ovens, Esq.	5	0 8	50	40·44	...
Dalbeattie (Colvend Manse)	Rev. J. Fraser	5	1 6	120 T	33·82	...
Gatehouse (Cally)	Dr. Buchan	5	1 0	50	41·44	188
Creetown (Cassencary)	J. A. Caird, Esq.	8	0 8	40	32·90	...
*Dalbeattie (Station Road)	Mr. W. McBride	5	1 1	50	40·20	139
Castle Douglas (Slogarie)	H. A. Timms, Esq.	5	1 0	300	44·98	...
D Kirkpatrick Durham (Glenlair)	A. W. Maxwell, Esq.	5	0 8	250	40·73	169
D Cargen [Dumfries]	P. Dudgeon, Esq.	5	0 4	80 ⅄	37·55	175
D New Galloway (Glenlee)	Mr. W. Melville	5	1 3	208	48·00	205
Irongray (Drum park) *old g.*	D. J. Kay, Esq.	3	0 6	230	49·65	...
,, (,, ,,)	,, ,,	5	1 0	230	47·83	...
Dalry (Dalshangan)	T. R. Bruce, Esq.	8	0 6	500	51·28	...
Carsphairn(Holm of Dalquhairn)	R. McMillan, Esq.	5	1 2	800	46·76	...
DUMFRIES.						
D Dumfries (Ivy Bank)	Rev. W. Andson	7	0 10	60 T	32·39	195
Canobie (Byreburnfoot)	W. Doughty, Esq.	3	0 4	160	42·37	...
Lockerbie (Tundergarth Manse)	Rev. R. Sanders	...	...	...	39·10	...
D Lochmaben (Esthwaite)	W. J. Halliday, Esq.	5	1 0	166 B	37·00	188
Langholm (Westwater)	W. Elliot, Esq.	5	2 0	550 T	48·74	...
,,	Mr. D. Elder	5	1 0	270 ⅄	48·10	184
Moniaive (Glencrosh)	R. McMillan, Esq.	5	1 2	350	51·34	...
D ,, (Maxwelton House)	Rev. Sir E. Laurie, Bt.	8	1 2	400 ⅄	42·65	186

DIVISION XII.—SOUTHERN COUNTIES (*continued*).

	STATIONS.	AUTHORITIES.	Rain Guage. Diameter	Height Above Ground. ft.	in.	Height Above SeaLevel	Depth of Rain 1893	Days on which ·01 or more fell
	DUMFRIES—(*con.*)					feet	inches.	
	Langholm (Ewes School)	J. C. Little, Esq.	3	1	0	445 T	43·85	...
	,, (,, Burnfoot)	,, ,, ,,	3	1	0	541 ⅄	45·29	...
	Thornhill (Capenoch House)	Mr. J. Dunlop	5	...		...	40·40	...
	Durrisdeer(DrumlanrigGardens)	Mr. D. Thomson	4	0	9	191	33·00	...
	Moffat (Craigielands)	W. Walthew, Esq.	5	0	9	360 T	49·65	...
	,, (Ericstane)	J. J. Welsh, Esq.	3	0	6	550	51·30	...
	ROXBURGH.							
	New Castleton (The Flatt)	J. Elliot, Esq.	3	0	9	350 T	39·40	...
D	Hawick (Branxholme)	J. G. Winning, Esq.	5	0	6	457 ⅄	29·95	155
	,, (Ladylaw)	The Meteor. Council	8	0	10	440	26·84	190
D*	Jedburgh (Sunnyside)	G. Hilson, Esq.	5	6	0	351 ⅄	25·51	143
	Lilliesleaf (Riddell)	Gen. Sprot	5	0	5	550 T	23·84	178
D	St. Boswell's (Elliston)	The Hon. G. Dalrymple	5	1	0	352	21·29	164
	Kelso (Springwood Park)	Mr. W. Chaplin	10	1	0	150 L	20·73	133
	,, (Broomlands)	Dr. Buchan	...	...		205	21·41	219
D	Melrose (Asylum) *old g*	Mr. Pattman	5	0	6	480 T	24·00	200
	,, (,,)	,, ,,	5	1	0	480 T	23·87	200
D	,, (Abbey Gate)	Mr. A. B. Dodds	5	0	6	280 T	25·67	180
D	Wooplaw [Galashiels]	J. Murray, Esq.	5	1	0	880 ⅄	24·76	177

DIVISION XIII.—SOUTH EASTERN COUNTIES.

	SELKIRK.							
D	Selkirk (The Hangingshaw)	Miss Johnstone	5	0	6	670 T	30·29	135
D	Galashiels (Abbotsford Rd.)	Dr. Somerville	5	0	6	416 T	25·67	192
	,, (Stantling Craigs)	Mr. W. Ross	12	1	3	1000	26·77	...
	PEEBLES.							
	Stobo Castle	Dr. Buchan	...	...		600	21·30	...
	Innerleithen (Leithen Lodge)	Mr. D. Clark	11	...		700	32·64	...
D	Peebles (Kailzie)	Captain W. C. Black	5	0	4	559 ⅄	32·51	154
	Eddlestone (Portmore Res.)	W. Anderson, Esq.	11	0	6	1000	27·58	169
D	N. Esk Reservoir [Penicuick]	Mr. W. Tod	11	0	6	1150 ⅄	33·50	150
	BERWICK.							
D	Coldstream (The Hirsel) *new g.*	Mr. Cairns	5	1	0	94 T	20·94	180
	,, (Milne Graden)	Dr. Buchan	...	...		103	21·65	109
D	Marchmont House	Mr. P. Loney	5	1	0	500 T	26·43	185
D	Dunse Castle	Mr. R. Aikman	5	1	0	500	26·02	127
	Eyemouth	Dr. Buchan	...	...		30	19·79	184
	St. Abb's Head	Bd. of Northern Lights	...	0	4	211	19·54	136
	HADDINGTON.							
	Garvald (Donolly Reservoir)	Mr. J. Henderson	11	0	2	600 T	28·33	..
D	Whittinghame Gardens	Mr. J. Garrett	5	1	0	348 B	23·45	119
D	Haddington (Asylum)	J. Mowat, Esq.	5	0	9	238 T	23·28	193
	Prestonkirk (Smeaton)	Dr. Buchan	...	...		100	22·29	134
	North Berwick Reservoir	Mr. J. Henderson	11	0	2	150 T	20·94	...

DIVISION XIII.—SOUTH EASTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	EDINBURGH.						
	Moorfoot Hills (Gladhouse Res.)	W. Anderson, Esq.....	11	0 6	900	26·87	171
	,, ,, (Rosebery).....	,, ,, ...	11	0 6	750	26·72	...
	Pentland Hills (Crosswood)	,, ,, ...	11	0 6	950	35·30	...
D	Gorebridge (Middleton)...	Miss Anstruther.....	5	1 0	750	30·17	167
	Penicuick (Edgelaw Res.).....	W. Anderson, Esq.....	11	0 6	654	26·69	...
	Pentland Hills (Harper rig)	,, ,, ...	11	0 6	900	37·83	...
	,, ,, (Harehill)	,, ,, ...	11	0 6	1470	42·05	...
	,, ,, (Loganlea)	,, ,, ...	11	0 6	850	36·65	...
	West Calder (Addiewell)	J. Fyfe, Esq.	5	0 6	600	29·79	...
	Pentland Hills (Glencorse Res.)..	W. Anderson, Esq.....	11	0 6	787	34·20	124
	,, ,, (Harlaw)	,, ,, ,, ...	11	0 6	800	30·69	...
	,, ,, (Clubbiedean Res)	,, ,, ,, ...	11	0 6	750	29·34	...
	,, ,, (Harbour Hill) ...	,, ,, ,, ...	11	0 6	1112	36·98	...
	Dalkeith	Dr. Buchan.....	...	...	190	16·84	113
	Colinton (Fernielaw).....	Messrs. Leslie & Reid..	11	0 6	500	26·70	...
D	Dalmahoy	Countess D. of Morton...	5	0 10	358	27·33	150
	Portobello (Joppa).....	R. Muirhead, Esq.....	5	1 0	20 T	21·04	..
D	Edinburgh (Blacket Place)	R. C. Mossman, Esq....	5	0 8	252 T	23·82	179
	,, (Charlotte Square)..	Messrs. Leslie & Reid..	11	0 6	230	20·93	...
	,, (,, ,,) ...	,, ,, ,, ...	12	63 0	300	16·76	...
	,, (Royal Observatory).	Dr. Copeland	5	23 0	370 ⅄	15·54	100
	,, (,, ,,)	,, ,, ...	5	1 0	347 ⅄	22·41	147
	,, (Streatham Ho.).....	Dr. Buchan.....	...	...	...	24 00	...
	Leith	The Meteor. Council ...	8	1 8	22	19·22	161
	,, (Navigation School)	Dr. Buchan.....	5	0 5	70	22·32	171
	LINLITHGOW.						
D	Whitburn (Polkemmet)	Lady Baillie	5	1 0	600 T	38·91	177
	Uphall	J. Fyfe, Esq.	5	0 9	380	23·52	...
	Linlithgow (Rockville).....	Mrs. Adie	3	0 9	260	23·79	...
	Bo'ness (Grange)	H. M. Cadell, Esq.....	3	1 0	20	23·20	...

DIVISION XIV.—SOUTH WESTERN COUNTIES.

	LANARK.						
D	Douglas (Newmains).....	Mr. J. Kerr.....	3	0 4	783	44·57	203
D	Biggar (Cambus Wallace)	Captain Paul	6	0 6	748 ⅄	25·80	164
	Carmichael House	Sir W. C. Anstruther, Bt.	6	1 0	786 T	24·00	...
	Cleghorn.....	W. Eliott Lockhart, Esq.	3	0 3	720	33·27	176
D	Lanark (Fence)	C. M. Irvine, Esq.....	5	4 0	445 ⅄	26·85	114
D	Dalzell House	Lord Hamilton	6	5 6	89 T	26·27	121
	Hamilton Water Works	Mr. R. Watson	7	1 0	436 T	31·85	...
	,, (Ardenclutha)	Rev. T. M. B. Paterson	5	1 9	260 T	31·92	...
	Bothwell Castle	Mr. W. F. B. Archibald	10	18 0	146 T	25·66	136
D	Airdrie (Hillend Reservoir)	Mr. W. A. Ritchie.....	6	4 6	620 ⅄	35·25	...
	Glasgow Observatory.....	J. Connell, Esq.	11	2 0	182	33·83	175
	,, (Belvedere Hospital).. ..	Dr. Buchan.....	...	...	54	33·16	171

DIVISION XIV.—SOUTH WESTERN COUNTIES—(*continued*).

	STATIONS.		AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above SeaLevel feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
	AYR.								
	Barrhill (Dochroyle)	M	Mr. J. Scott	6	0	6	548 T	42·39	...
D	Colmonell (Clachanton)		R. Aitken, Esq.	6	0	6	100 T	41·29	186
	Girvan (Pinmore)		Capt. Hamilton	5	1	0	187 ⅄	47·31	196
D	Barr Manse		Rev. G. Dods	5	1	0	330	49·85	201
	Loch Finlas		J. Wilson, Esq., C.E.	5	1	0	849	50·61	...
	Girvan (Turnberry)		Bd. of Northern Lights	...	...		...	30·16	124
D	Dalmellington (Benquhat)		A. Gillespie, Esq.	...	1	6	1068	48·74	198
	Maybole (Culzean Gardens)		Mr. D. Murray	9	3	0	200	33·18	152
D	,, (Sauchrie)		E. A. Miller, Esq.	5	1	0	380	43·78	200
	Ayr (Auchinlee)		Mrs. Drennan	6	3	0	36 T	32·35	...
D	Old Cumnock (Townhead)		Mr. H. Neal	5	1	0	370 T	40·41	208
	,, ,,	M	,, ,,	...	...		...	40·28	...
	Mauchline		Mr. A. Muir	5	4	4	483 T	38·88	...
	Kilmarnock (North Craig)		R. Blackwood, Esq.	12	1	0	319 ⅄	39·85	...
	Ardrossan		The Meteor. Council	8	1	0	10	31·24	203
D	,, (Kirkhall)		H. F. Weir, Esq.	8	2	9	106 ⅄	32·85	163
	Paisley W. W. (Camphill)		J. W. Moncur, Esq.	12	1	6	611	53·92	...
	Wemyss Bay (Ashcraig)	M	Miss Stewart	10	2	10	30	56·94	...
	Shaws W. Works (Kelly Dam)		J. Wilson, Esq., C.E.	6	1	0	640 ?	57·90	...
	RENFREW.								
	Lochwinnoch (Garthlands)		J. Wilson, Esq., C.E.	...	...		...	63·75	...
	,, (Castle Semple)		Mr. J. M. McMillan	6	30	0	240	50·25	197
Gorbals's Dist.	Ryat Lynn		J. M. Gale, Esq., C.E.	8	0	5	310	44·30	...
Gorbals's Dist.	Waulk Glen		,, ,, ,,	12	0	5	280	42·95	..
Gorbals's Dist.	Middleton		,, ,, ,,	12	0	5	550	47·90	...
Gorbals's Dist.	Nether Cairn		,, ,, ,,	12	0	5	700	45·95	...
Paisley W. Works	Stanely		J. W. Moncur, Esq.	12	1	0	190	37·19	...
Paisley W. Works	Back Thornleymuir		,, ,,	12	1	0	646	41·37	...
Paisley W. Works	Muirhead		,, ,,	12	1	0	482 ⅄	47·44	...
Paisley W. Works	Springside		,, ,,	12	1	0	532 ⅄	51·92	...
D	Glasgow (Queen's Park)		J. Whitton, Esq.	8	0	9	144 ⅄	33·05	179
	Paisley (Crookston)		Major Hotchkis	3	0	5	...	31·45	242
	,, (The Coats Observatory)		Dr. Buchan...	10	1	0	107	38·04	185
Shaws Water Works.	Creuch Hill		J. Wilson, Esq., C.E.	6	1	0	1100	53·81	...
Shaws Water Works.	Green Water		,, ,, ,,	6	1	0	788 ⅄	61·60	...
Shaws Water Works.	Gryfe Reservoir		,, ,, ,,	6	1	0	640 ⅄	58·20	...
Shaws Water Works.	Mansfield		,, ,, ,,	5	1	0	573 ⅄	58·23	250
Shaws Water Works.	Compensation Reservoir		,, ,, ,,	5	1	0	600	55·15	...
Shaws Water Works.	Loch Thom		,, ,, ,,	5	1	0	643 ⅄	55·24	263
Shaws Water Works.	Shielhill		,, ,, ,,	6	1	0	962 ⅄	51·60	...
Shaws Water Works.	Spango Burn		,, ,, ,,	6	0	9	757 ⅄	51·50	...
Shaws Water Works.	Hole Glen		,, ,, ,,	5	1	0	603	58·14	246
Shaws Water Works.	New Yetts Dam		,, ,, ,,	5	1	0	800	57·57	245
D Shaws Water Works.	Prospect Hill		,, ,, ,,	5	1	0	233	58·08	211
	Port Glasgow (Dougliehill Res.)		,, ,, ,,	5	1	0	549 ⅄	50·26	161
	,, ,, (Auchendores Res)		,, ,, ,,	5	1	0	321 ⅄	44·89	161

DIVISION XV.—WEST MIDLAND COUNTIES.

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above SeaLevel	Depth of Rain. 1893	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	DUMBARTON.						
	New Kilpatrick (Chesters)	J. Kennedy, Esq.	5	1 0	245 T	38·44	...
	Dumbarton (Leven Shipyard) ...	Messrs. Denny, Bros...	5	1 0	21 T	41·23	206
	Helensburgh (Lyleston)	Forrest Frew, Esq.....	6	0 6	120	44·25	...
D	,, (Dalglenan).....	L. P. Muirhead, Esq....	5	1 0	70	48·04	222
D	,, (Ferniegair)	J. R. Wilson, Esq. ...	6	0 6	18	45·82	199
	Arrochar	Rev. J. Dewar	5	0 9	12	73·32	...
	STIRLING.						
	Strathblane (Mugdock Reservoir)	J. M. Gale, Esq., C.E..	8	0 6	320	43·85	...
D	,, (Craigend Castle) ...	Sir J. Buchanan, Bart.	5	0 9	543 T	50·62	207
	Falkirk (Kerse)	C. Brown, Esq.	8	1 0	...	22·90	...
	Little Denny	Col. J. S. Stirling	...	...	...	36·60	...
	Earlsburn Reservoir	,, ,, ...	...	...	...	49·20	...
D	Killearn (Old Ballikinrain)	Mr. J. Smith	5	0 6	265	49·72	177
	St. Ninians (Fallin)	Col. J. S. Stirling	...	...	...	40·60	...
	Stirling (Touch Reservoir)	,, ,, ...	...	...	...	37·90	...
	,, (Polmaise Gardens).....	Mr. W. W. Ritchie ...	6	1 0	12	24·96	...
	,, (Victoria Place)	Mr. R. Kidston	5	2 10	100	29·74	...
D	Buchlyvie (The Manse).	Rev. J. A. Macdonald..	5	1 3	118 T	43·00	222
	Gargunnock	Col. J. S. Stirling	5	5 8	85	37·89	...
	Kippen (Garden House)	,, ,, ,, ...	...	...	...	40·11	...
	Ben Lomond	J. M. Gale, Esq, C.E...	...	...	1800	72·70	...
	BUTE.						
	Arran (Pladda)	Bd. of Northern Lights	...	...	...	34·58	144
	Holy Island (Lamlash)	,, ,, ,,	...	...	...	56·10	...
D	Rothesay (Barone Cottage)	J. Kay, Esq.	5	1 0	116 ⅄	43·20	231
D	,, (Crichton Road).....	H. Lauder, Esq.....	5	4 0	97	48·20	226
	ARGYLL—(MAINLAND.)						
D	Tayvallick (Taynish)	Capt. Barne	5	1 0	15 T	49·94	220
	Ardrishaig	Dr. Buchan.....	8	0 6	14	67·53	...
	Loch Eck (Benmore).....	H. J. Younger, Esq. ...	5	1 0	40	86·18	237
D	Lochgilphead (Kilmory) *Snowdon*	SirJ.Campbell Orde,Bt.	5	...	...	61·65	222
	,, (Poltalloch)	Mr. D. S. Melville.....	3	4 6	126	59·15	216
	,, (,,)	,, ,, ...	5	0 4	121	56·76	...
	Loch Awe (Ederline)...	Mr. D. McLeod	5	1 6	130	70·05	170
D	Inverary Castle	Mr. G. Taylor	5	1 0	40	82·37	245
D	,, (Newtown).....	Mrs. Little.....	5	1 0	17	72·80	236
D	Oban (The Corran)	Dr. Bailey	5	1 0	20	53·79	239
	Appin (Aird's) ..... M	R. Macfie, Esq.	5	0 11	41 ⅄	53·15	..
D	Morvern (Drimnin)	Mrs. Gordon	5	1 0	225	65·02	264
D	Ballachulish (Ardsheal)	Dr. W. D. Anderson...	8	1 0	103 T	76·90	234
	,, (Craigrannoch).....	D.Campbell, Esq., M.D.	8	1 0	22	86·20	242
D	Strontian (Laudale)	A. Fletcher, Esq.	8	1 0	15 ⅄	67·13	257
D	Loch Sunart (Glenborrodale) ...	J. J. Dalgleish, Esq....	5	0 2	60 L	68·30	246
	Ardgour House	Mr. D. Maclean	3	0 10	72	88·90	...
	Ardnamurchan	Bd. of Northern Lights	...	3 6	28 ?	47·93	186

DIVISION XV.—WEST MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
ARGYLL—(MAINLAND).—(*con.*)						
D Ardnamurchan (Achateny)	Mr. R. Coltart	5	0 2	61 ⅄	67·35	241
Loch Eil (Corran)	Bd. of Northern Lights	...	0 4	14 ?	88·98	213
D ,, ,, (Conaglen)	CountessDow. of Morton	5	0 10	36	96·04	205
ARGYLL—(INSULAR.)						
Sanda	Bd. of Northern Lights	...	...	...	19·88	...
Kintyre, Mull of	,, ,,	...	...	279 ?	43·90	127
,, (Campbeltown, Devaar)	,, ,,	...	3 4	75 ?	34·64	192
,, (Skipness Castle)	Mr. P. McLean	5	1 6	22	48·51	...
,, (Stonefield, Tarbert)	Colin G. Campbell, Esq	5	0 9	90	70·95	238
D Islay (Ardbeg)	C. Hay, Esq.	5	7 0	46	43·42	212
,, (Rhinns)	Bd. of Northern Lights	...	3 0	74 ?	35·42	133
,, (Lochindaul)	,, ,,	...	...	...	33·75	167
,, (McArthurshead)	,, ,,	...	...	...	36·00	120
,, (Eallabus)	J. S. R. Ballingal, Esq..	5	1 0	68 T	44·70	201
D* ,, (Gruinart School Ho.)	Mr. D. Mac Gilp	5	1 0	214 ⅄	50·08	263
Jura (Lowlandmansbay)	Bd. of Northern Lights	...	...	...	50·66	208
,, (Fladda)	,, ,,	...	...	...	61·40	146
,, (Ardfin)	Miss J. H. Campbell	5	0 6	130	56·08	...
Lismore (Mousedale)	Bd. of Northern Lights	...	3 4	37 ?	42·28	177
D Mull (Quinish)	J. N. Forsyth, Esq.	5	0 9	35	53·67	239
,, (Sound of)	Bd. of Northern Lights	...	...	...	52·82	165
Coll (The Manse)	Rev. N. MacDougall..	5	1 0	100	53·38	...

DIVISION XVI.—EAST MIDLAND COUNTIES.

CLACKMANNAN.						
Alloa (Mar Street)	J. Melville, Esq	5	0 6	70	25·90	...
Menstrie (The Myretoun)	Miss Johnstone	5	0 4	120	30·49	...
Alva House	Mr. McDerment	5	1 2	...	30·13	...
D Dollar	Mr. A. Blackwood	9	1 0	178	29·25	146
KINROSS.						
Blairingone [Dollar]	Rev. J. F. Cameron	5	1 6	300 T	31·40	...
Loch Leven Sluice	Mr. W. Clark	7	0 7	360 L	27·90	...
D Kinross (Gelly Bank)	G. Henderson, Esq.	5	0 6	440 ⅄	28·59	170
FIFE.						
D Culross (West Grange)	J. J. Dalgleish, Esq.	5	0 2	116 ⅄	23·53	157
D Dunfermline (Keavil)	L. Dalgleish, Esq.	5	0 2	150	22·09	165
Carnock (Luscar House)	A. Mitchell, Esq.	5	0 10	430 T	27·20	...
,, (,, ,,) ...No. 2	,, ,,	5	0 10	430 T	27·02	...
D Beath (Outh)	L. Dalgleish, Esq.	5	0 2	890	34·69	153
Kilconquhar (Balcarres)	Mr. E. Tate	5	0 6	300 T	27·39	192
Kennoway (Kilmux)	D.J.RusselDuncan, Esq	5	1 0	500	27·29	217
D Cupar (Fife & Kinross Asylum)	Dr. Turnbull	5	0 4	210	21·01	132
Kilmany (Mountquhanie House)	D. Gillespie, Esq.	3	1 3	240	21·60	...
Tayport	D. Cunningham, Esq...	5	1 0	27	22·84	128

DIVISION XVI.—EAST MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1893 inches.	Days on which ·01 or more fell.
	PERTH.							
	Aberfoyle	J. M. Gale, Esq., C.E..	8	0	6	60	50·60	...
	Dunblane (Kippenross)	Col. P. Stirling	3	0	4	150 ↑	29·40	...
D	Doune (Gartincaber)	G. Burn Murdoch, Esq.	5	1	0	200	35·91	191
	Sheriffmuir (Lynns Farm)	Col. P. Stirling	...	1	0	680	33·94	...
	Loch Dhu	J. M. Gale, Esq., C.E..	8	0	6	325	71·80	...
	Ledard	,, ,, ,,	...	...		1500	45·95	...
	Loch Drunkie	,, ,, ,,	8	0	6	420	53·70	...
	,, Vennachar	,, ,, ,,	8	0	6	275	46 40	.
D	Lanrick Castle	Mr. J. Begg	3	1	0	...	41·80	153
D	Cromlix Gardens	Cap.Hn.AHDrummond	5	1	0	450	42·03	195
	Bridge of Turk	J. M. Gale, Esq., C.E..	8	0	6	275	53·10	...
	Loch Katrine (Tunnel Hill Top)	,, ,, ,,	8	0	6	830	81·10	...
	Between Glen Finlas & Ben Ledi.	,, ,, ,,	8	0	6	1800	40·10	...
	Callander (The Gart)	C. A. Ainslie, Esq.	5	0	7	250	49·14	...
	,, (Leny)	J. B. Hamilton, Esq.	3	0	4	345 ↑	46·00	..
	Glen Gyle	J. M. Gale, Esq., C.E..	...	...		380	91·90	
D	Balquhidder (Stronvar)	J. Dickson, Esq.	6	1	0	422 ↑	61·61	232
D	Crieff (Ochtertyre)	Mr. G. Croucher	5	3	0	326 ↑	30·93	168
	Perth (Rosebank)	Dr. Buchan	...	...		140	23·74	145
	,, (Huntingtower Field)	Mr. A. Bayne	6	1	0	40	22·40	.
D	Coupar Angus Station	Mr. J. Robertson	5	1	3	183 ↑	21·40	167
D	Dunkeld (Inver Braan)	Rev. J. M. B. Murdoch	...	1	0	500 ?	30·68	101
D	Pitlochry (Donavourd)	W. Maxwell, Esq.	6	0	7	400	26·40	107
	,, (Fasganevin)	T. Renny, Esq.	5	1	0	350	30·26	...
D	Rannoch (Gauer)	W. Granger, Esq.	...	...		...	53·10	159
D	Dalnaspidal (H.R.S.)	The Station Agent	5	3	0	1414 ↑	57·17	264
	FORFAR.							
	Buddonness	D. Cunningham, Esq...	5	1	0	17	22·71	147
D	Dundee (Harbour)	,, ,, ,, ...	5	0	10	14	23·96	180
D	Broughty Ferry (Douglas Ho.)	Mr. K. Graham	5	5	6	60 ↑	23·99	152
D	Dundee (Eastern Necropolis)	Mr. J. Carnochan	3	0	4	199 ↑	23·95	132
D	,, (,, ,,) *new*	,, ,, ,,	5	0	4	199 ↑	24·37	180
	,, (Dens Works)	Messrs. Baxter Bros.	5	...		119 ↑	21·84	...
D	,, (Camperdown Works)	Messrs. Cox Bros.	5	3	8	290	20·50	108
D†	Craigton	G. Baxter, Esq.	8	1	0	481	32·16	152
†	,, M	,, ,,	11	0	3	481	30·41	
†	Crombie Reservoir M	,, ,,	11	0	3	522 ↑	31·13	...
†	Hill Head M	,, ,,	11	0	3	570 ↑	29·23	...
D	Arbroath (Waterworks)	W. Stewart, Esq., C.E.	5	0	11	57	20·96	150
	,, (,,) M	,, ,, ,,	5	1	0	57	21·04	...
D	,, (Dishland Hill)	Mr. J. Campbell	5	0	11	66	20·21	151
D	Inverarity Manse	Rev. P. Stevenson	5	1	0	301	27·57	109
D	Kirriemuir (Lednathie)	Mr. W. Morrison	5	1	0	720	32·78	198
D	,, (Lintrathen)	G. Baxter, Esq.	8	1	0	700	27·06	153
	,, (,,) M	,, ,,	8	1	0	700	27·20	...
	,, (,, Creich Hill) M	,, ,,	8	1	0	1500	27·45	...
	Montroseness	Bd. of Northern Lights	...	...		...	23·71	...
D	Montrose (Sunnyside Asylum)	Dr. J. C. Howden	5	0	10	200	23·51	139

DIVISION XVII.—NORTH EASTERN COUNTIES.

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1893	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	KINCARDINE.						
	Laurencekirk (Johnstone Lodge)	Dr. Buchan	...	...	...	29·14	...
	The Burn [Brechin]	Col. McInroy	5	0 6	250	27·40	...
	Fettercairn (Arnhall)	J. H. Hay, Esq.	5	0 6	194	26·54	...
D	,,	A.C.Cameron, Esq.LL.D	5	0 4	237 ⊼	28·04	137
	ABERDEEN.						
D†	Braemar	J. Aitken, Esq.	8	0 9	1114 ⊺	30·45	217
	Forest of Glen Tana	Sir W. C. Brooks, Bt.	5	1 0	576 ⊺	?22·47	100
D	Cromar (Logie Coldstone Manse)	Rev. Dr. Davidson	5	1 0	694 ⊼	28·53	197
D	,, (,, ,, School)	Mr. H. Cowie	5	1 0	607 ⊺	29·28	202
	,, (,, ,, Loanhead)	Mr. A. Farquharson	5	1 0	743 ⊼	30·17	189
	,, (Tillypronie)	Mr. R. Littlejohn	5	1 0	1120 ⊼	30·07	204
D	Aberdeen (Cranford)	D. McHardy, Esq.	5	1 0	120 ⊺	29·06	214
†	,, (Rose Street)	Dr. A. Cruickshank	5	0 5	95 ⊺	25·01	...
	,, (Duthie Park)	Mr. P. Harper	5	1 0	40	26·91	165
	,, (Gordon's Hospital)	Dr. Buchan	8	1 6	66 ⊺	29·75	223
	,, (King's College)	The Meteor. Council	8	...	48	29·50	220
D	Midmar (Dun Echt Observatory)	Dr. Copeland	8	0 11	461 ⊼	27·51	182
	Inverurie (Manor Farm)	Mr. J Walker	8	15 0	...	27·11	...
	Ellon (Kermuck)	Mr. T. Mair	11	0 6	300 ⊺	29·41	...
	Haddo House	Mr. J. Forrest	5	7 6	197 ⊺	31·28	...
	Peterhead (Buchanness)	Bd. of Northern Lights	...	...	...	24·62	132
D	New Deer (Artamford Cottage)	J. Joiner, Esq.	5	1 0	551 ⊼	31·83	222
D	Old Deer	J. Walker, Esq.	5	2 0	135 ⊼	30·23	218
	Kinnairdhead	Bd. of Northern Lights	...	...	...	26·63	110
	BANFF.						
D	Keith (H.R.S.)	The Station Agent	5	1 0	364 ⊺	33·82	196
D	Banff (Earl Hill)	A. Ramsay, Esq.	5	1 0	115 ⊺	30·02	227
D	Boyndie (Whitehills)	Rev. W. Anderson	5	1 0	68 ⊼	28·89	222
	Cullen House	Mr. J. F. Smith	5	1 0	100 ⊺	34·50	...
	ELGIN OR MORAY.						
	Grantown	Mr. W. Duncan	5	1 1	712 ⊼	33·24	216
	Craigellachie(WesterElchiesSch)	Mr. J. Milne	5	1 0	560 ⊺	35·67	184
D	Forres (H.R.S.)	The Station Agent	5	1 0	25	26·90	181
	,, (Grange Hall)	J. Grant Peterkin, Esq.	5	1 0	52 ⊺	27·40	...
D	Gordon Castle	Mr. C. Webster	8	1 0	107 ⊼	35·15	192
D	Elgin (Highfield)	A. Cameron, Esq.	5	1 0	80 ⊺	31·69	207
	NAIRN.						
D	Nairn (Achareidh)	Col. Clarke	8	1 0	59	27·33	195
	,, (School Ho.)	The Meteor. Council	8	1 9	84	26·84	208

DIVISION XVIII.—NORTH WESTERN COUNTIES.

	WEST ROSS.‡						
	Applecross Gardens	Mr. D. McCowan	5	1 0	70 ⊼	57·40	...
D	Strathconan [Beauly]	Mr. D. McIver	5	1 0	450	63·19	131

‡ Including Cromarty.

DIVISION XVIII.—NORTH WESTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height above Ground.	Rain Gauge. Height above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	WEST ROSS—(*con.*)						
D	Glencarron Lodge	Mr. D. D. Munro	5	1 0	504	109·93	270
	Loch Vraon	Sir J. Fowler, Bt.	8	0 7	750	74·69	...
	Lochbroom (Loch Drome)	,, ,, ,,	8	0 7	850	66·54	...
	Braemore House	,, ,, ,,	8	0 7	750	71·45	...
	,, Lodge = Foich	,, ,, ,,	8	0 7	100	63·56	...
D	Ullapool (Rhidorroch)	W. R. Cookson, Esq.	...	...	...	68·93	233
	Isle of Lewis (Stornoway)	Bd. of Northern Lights	...	3 4	31 ?	37·75	218
	,, (,,)	The Meteor. Council	8	1 0	24	48·06	272
	,, (Butt of Lewis)	Bd. of Northern Lights	...	3 6	...	53·50	186
	EAST ROSS.‡						
	Contin (Kinnahaird)	W. Ross. Esq.	5	1 2	74 T	35·21	163
	Strathpeffer Spa	J. T. Fox, Esq.	5	0 10	120	33·62	245
	Dingwall (Uplands)	A. Beattie, Esq.	3	1 0	360 T	27·50	...
	Evanton (Swordale House)	Dr. Buchan	...	...	...	31·30	...
	Cromarty	Bd. of Northern Lights	...	...	...	19·79	120
D	Alness (Ardross Castle)	Mr. R. Massie	5	1 0	450 T	36·43	199
D	Fearn (Lower Pitkerrie)	R. Gordon, Esq., C.E.	5	1 0	95	23·82	162
	,, (Geanies Mains)	Miss Hope Douglas	5	1 5	200	22·46	...
	Tarbetness	Bd. of Northern Lights	...	3 4	61 ?	18·36	...
	WEST INVERNESS.						
	Ben Nevis Observatory	Dr. Buchan	5	...	4407	165·77	290
D	Fort William (Public School)	C. Livingstone, Esq.	5	1 0	36 T	86·92	244
	,, ,, (Observatory)	The Meteor. Council	8	...	...	83·65	237
	Moidart (Roshven)	Prof. Blackburn	5	1 0	68 T	63·49	267
D	Loch Shiel (Glenaladale)	Major Macdonald	5	1 2	50 ?	118·53	256
D	Borrodale (Arisaig)	Mr. A. Grant	5	1 0	20 ?	68·54	259
D	Glenquoich	Mr. D. Grant	8	2 4	660	124·22	258
	Skye (Oronsay)	Bd. of Northern Lights	...	0 6	15 ?	58·82	223
	,, (Kyleakin)	,, ,, ,,	...	...	...	81·12	186
	,, (Edinbane, Loch Grishinish)	Dr. K. M. Macdonald	4	0 10	...	63·10	...
	Rona	Bd. of Northern Lights	...	...	...	62·69	180
	Barra (Barrahead)	,, ,, ,,	...	3 0	640 ?	35·75	179
	S. Uist (Askernish)	D. Paterson, Esq.	5	1 0	10	49·24	244
	,, ,, (Ushenish)	Bd. of Northern Lights	...	0 4	157 ?	55·10	166
	N. Uist (Monach)	,, ,, ,,	...	...	...	53·82	190
D	,, (Loch Maddy)	J. M. Fraser, Esq.	5	1 0	...	51·41	217
	Harris (Island Glass)	Bd. of Northern Lights	...	...	...	35·05	...
	EAST INVERNESS.						
D	Loch Treig (Luibruaridh)	W. Granger, Esq.	...	...	...	75·34	166
D	Invergarry	Mrs. Ellice	5	1 0	...	62·48	134
D	Fort Augustus (St. Benedict's)	Rev. M. Wall	5	1 6	68	47·32	248
D	Aviemore (H.R.S.)	The Station Agent	5	1 0	710	31·83	241
D	Loch Ness (Drumnadrochit)	Mr. A. Grant	5	1 0	104	35·76	241
	Inverness (High School)	Dr. Buchan	...	...	114	28·71	...
†	,, (Culloden House)	D. Forbes, Esq.	6	4 0	104 T	24·42	...
D	Cawdor [Nairn]	J. Joss, Esq.	5	1 0	250 T	31·81	225

‡ Including Cromarty.

DIVISION XIX.—NORTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1893	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
SUTHERLAND.						
Invershin	Mr. G. Young	5	4 0	20 T	29·61	160
D Golspie (H.R.S.)	The Station Agent	5	0 9	27	34·13	158
D ,, (Dunrobin Castle)	Mr. D. Melville	5	1 0	14 M	33·30	185
,, (,, ,,) M	,, ,,	3	0 3	13 M	31·45	...
Lairg	The Meteor. Council	5	0 10	332	41·37	262
Stourhead	Bd. of Northern Lights	...	...	...	50·50	188
D Scourie	J. Simpson, Esq.	5	0 4	28	56·88	...
Cape Wrath	Bd. of Northern Lights	3	3 6	355	47·17	127
CAITHNESS.						
Wick	The Meteor. Council	8	1 9	77	34·91	235
† ,, (Nosshead)	Bd. of Northern Lights	8	4 8	127 ?	25·29	...
D† Watten (H.R.S.)	The Station Agent	5	2 6	75 T	31·10	209
Thurso (Holburnhead)	Bd. of Northern Lights	3	0 8	60 ?	40·20	132
Dunnethead	,, ,, ,,	...	3 0	...	33·35	137
Pentland Skerries	,, ,, ,,	...	3 3	72 ?	24·75	152
ORKNEY.						
D South Ronaldshay (Roeberry)	J. Gray, Esq.	5	1 2	101 M	35·80	251
North Ronaldshay	Bd. of Northern Lights	...	...	...	36·25	103
Hoy (Cantickhead)	,, ,, ,,	...	0 6	...	32·00	130
,, (Graemsay Sound, East=High)	,, ,, ,,	...	3 4	27 ?	34·60	144
,, (,, ,, West=Low)	,, ,, ,,	...	3 4	...	35·51	176
Pomona (Deerness)	Dr. Buchan	...	1 0	170	39·30	173
,, (Kirkwall)	Mr. Alex. Smith	3	1 3	20	42·58	...
Shapinsay (Balfour Castle)	Mrs. Balfour	5	0 6	50	35·82	...
Auskerry	Bd. of Northern Lights	...	...	...	37·53	128
Sanda (Start Point)	,, ,, ,,	11	0 6	29 ?	32·27	104
SHETLAND.						
Fair Isle, S.	Bd. of Northern Lights	...	...	...	20·69	128
,, ,, N.	,, ,, ,,	...	...	...	20·83	...
Sumburghead	,, ,, ,,	...	...	...	33·72	143
,, (Dunroseness)	The Meteor. Council	8	1 0	84	40·85	267

IRELAND.

DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height above Ground.	Rain Gauge. Height above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
CORK.						
D Castletownshend (Glen Barrabane)	E. B. Coghill, Esq. ...	5	3 0	25 L	35·29	156
Bantry House	The Meteor. Council ...	...	...	...	52·43	178
D Dunmanway (Coolkelure)	Col. Shuldham	5	1 6	500 T	58·54	205
Roche's Point	The Meteor. Council ...	8	1 9	32	36·50	155
D Douglas (Villa Franca)	R. C. Sikes, Esq.	5	1 0	49 T	33·24	171
D Cork (Clarence Place)	W. Miller, Esq.	5	1 0	106 ⅄	32·00	175
D ,, (St. Ann's Hill)	Dr. M. Altdorfer	5	1 0	240	33·60	192
D Mallow (Old Dromore)	B. Williamson, Esq. ...	5	1 11	291 ⅄	34·30	178
D Fermoy (Gas Works)	Mr. J. Grant	5	1 1	...	32·47	135
KERRY.						
D Darrynane Abbey ..	D. O'Connell, Esq.	5	1 0	13 ⅄	42·46	214
D Waterville	T. J. Wilmot, Esq.	5	1 0	86 ⅄	45·13	205
Kenmare (Derreen)	Mr. W. Holbrow	5	1 0	74 T	55·92	163
Valencia (Glenleam = Tel. Station)	The Meteor. Council ...	8	1 0	12	46·36	226
Cahirciveen	,, ,, ,, ...	8	...	...	42·45	225
D Killarney (Woodlawn)	Ven Archdeacon Wynne	5	1 1	96 ⅄	41·88	218
,, (Gap of Dunloe)	,, ,, ,, ...	8	3 6	75	80·50	...
Dingle	Rev. J. B. Anderson ...	5	1 0	20	51·35	...
Tralee (Meadow Lands)	S. Goodwin, Esq., C.E.	5	1 0	60	36·13	...
Ballyheigue	Ven Archdeacon Wynne	5	1 2	30	28·03	...
WATERFORD.						
D Knockaderry	M. J. Fleming, Esq. C.E.	5	0 9	230 T	31·69	195
D Waterford (Brook Lodge)	C. P. Bolton, Esq., C.E.	5	1 0	104 T	28·73	174
,, (Cove Lodge)	T. N. Harvey, Esq. ...	11	7 3	90	27·50	...
D ,, (Ticor)	M. J. Fleming, Esq. C.E.	5	0 7	171 T	26·90	149
D Portlaw (Mayfield)	J. Anderson, Esq.	5	4 0	70	34·16	177
D Glenam [Clonmel]	Miss Grubb	8	1 4	80 T	33·43	196
TIPPERARY.						
D Clonmel (Bruce Villa)	J. H. Grubb, Esq.	5	1 3	110 T	31·91	197
D Caher (Duneske)	G. N. Smith, Esq.	5	...	177	26·54	185
D Tipperary (Henry Street)	J. Dowling, Esq., M.D.	5	1 0	400 ?	30·84	172
D Fethard (Mobarnane)	Dr. Donaldson	5	1 1	370 L	29·45	159
D Ballina [Killaloe]	T. Cresthwaite, Esq. C.E.	5	2 0	124 ⅄	36·07	187
D Derry Castle [Killaloe]	Mr. T. Manly	5	1 6	580 T	41·29	210
D Nenagh (Clashnevin)	J. Mounsey, Esq.	5	1 2	300 ⅄	25·22	174
,, (Castle Lough)	A. Parker, Esq.	5	1 3	120 T	31·34	190
D Ballingarry (Hazelfort)	Mrs. Fraser	5	1 0	...	28·10	200

DIVISION XX.—MUNSTER—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1893	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	LIMERICK.						
	Newcastle West (Churchtown)...	J. Horan, Esq.	5	1 0	234 T	33·32	200
	Foynes	The Meteor. Council ...	..	...	...	33·89	194
	Limerick (Roxborough).....	A. W. Shaw, Esq.....	8	1 6	112 T	29·49	202
D	,, (Kilcornan)	Mr. J. Smyth.....	5	1 0	...	26·42	126
	CLARE.						
D	O'Briensbridge (Ross)	J. Digan, Esq.	10	2 0	93	31·33	188
	Sixmilebridge (Kilkishen).....	Rev. Canon Lloyd	5	4 4	116 ⅄	31·87	150
D	Broadford (Hurdlestown).....	Major Bentley	5	1 0	167 ⅄	28·38	218
D	Ennis	late J. Hill, Esq., C.E.	10	3 2	21 L	32·96	171
	,, (Roslevan)	Mrs. Scott	5	1 11	40	30·70	192
D	Miltown Malbay	M. Molohan, Esq.	5	1 0	400 T	39·08	226
	DIVISION XXI.—LEINSTER.						
	WEXFORD.						
D	New Ross (Longraigue).....	J. W. Deane, Esq.....	5	1 0	210 T	28·58	174
D	Wexford (Bann-aboo)	Col. Magrath	8	5 2	10	25·80	142
D	,, (Alma)	E. K. Ryan, Esq., C.E.	5	1 5	50 ⅄	27·43	149
D	,, (Felt House)	W. Charlton, Esq.....	5	3 3	0	19·98	...
D	Enniscorthy (Ballyhyland)	late J. Moffat, Esq. ...	5	1 0	365 T	30·31	192
D	,, (Monksgrange).....	E. M. Richards, Esq...	5	1 0	516 B	38·78	216
D	Oulart (Wells)	C. M. Doyne. Esq.. ..	5	1 0	215 T	30·09	183
D	Gorey (Courtown House)	Rt Hon Earl of Courtown	5	3 0	80 T	24·50	149
	KILKENNY.						
D	Inistioge (Woodstock)	Lady Louisa Tighe ...	5	1 0	400 T	21·89	167
D	Graigue (Brandondale).....	R. R. Burtchaell, Esq.	5	2 0	90 T	27·86	119
	Kilkenny (Lavistown)	D. A. Milward, Esq....	5	2 0	180 T	24·76	157
	,, Castle.....	The Meteor. Council ...	8	...	...	26·52	182
	WICKLOW.						
	Laragh (Glendalough)	Wyndham H Wynne Esq	5	2 9	460 T	43·38	205
	Ashford (Ballycurry)	Col. Tottenham	...	...	...	25·65	...
	Greystones (Knockdolian).....	R Cathcart Dobbs Esq CE	5	1 2	68 T	22·50	170
D†	Bray (Fassaroe)	R. M. Barrington, Esq.	10	5 0	250	26·25	169
	CARLOW.						
	Bagnalstown (Fenagh House) ...	D. R. P. Beresford, Esq	5	1 0	340	28·65	194
D	Carlow (Browne's Hill).....	W. Browne Clayton, Esq.	5	1 0	291 ⅄	25·73	157
	QUEEN'S COUNTY.						
	Abbey Leix (Blandsfort)	J. L. Bland, Esq.	5	3 0	532 ⅄	31·43	196
	KING'S COUNTY.						
	Parsonstown (Birr Castle)	The Meteor. Council ...	8	0 11	180	28·29	169
D	,, (,, ,,)	Rt Hon Earl of Rosse FRS	8	0 7	176	28·22	167
D	Meelick Lock.....	T. Crosthwaite, Esq. C.E.	5	2 0	...	23·53	185
	Banagher	Mr. J. Deegan	5	2 0	...	23·04	...

DIVISION XXI.—LEINSTER--(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1893	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
KILDARE.						
D Straffan House	Mr. F. Bedford	5	2 0	240 ⅄	23·10	161
DUBLIN.						
Glen-na-Smoel (Water Works)	F. P. Dixon, Esq., C.E.	5	1 6	516 ⅄	28·93	204
D Killiney (Cloneevin)	R. O'B. Furlong, Esq.	5	1 0	250 T	18·05	176
Rathmines (Terenure)	F. P. Dixon, Esq., C.E.	8	0 6	125 ⅄	21·28	175
,, (Leinster Road)	E. H. Cannon, Esq.	5	1 0	170	21·89	179
D† Dublin (FitzWilliam Square)	J.W.Moore, Esq., M.D.	5	3 2	54 T	20·49	174
D ,, (Phœnix Park)	Col. Kirkwood, R.E.	8	1 0	155 ⅄	22·44	207
D Lucan (The Garden)	Mr. P. Reid	5	1 0	105 ⅄	23·24	153
D Glasnevin (Botanic Gardens)	F. W. Moore, Esq.	8	1 0	68 ⅄	23·75	151
Balbriggan (Ardgillan)	The Royal Meteor. Soc.	8	0 8	210	22·92	181
D ,, (Laragh)	Rev. S. P. Warren	5	1 0	57 T	20·96	209
MEATH.						
D Athboy	J. Penrose, Esq.	8	1 3	227	26·24	158
D Kells (Headfort)	MajorSomersetMaxwell	5	3 6	230	28·74	211
D Moynalty (Westland)	W. A. Barnes, Esq.	5	1 2	260	29·84	187
D Aclare House	Admiral Singleton,C.B.	5	3 0	170 T	?19·61	146
WESTMEATH.						
D Athlone (Twyford)	J. P. Hodson, Esq.	5	5 0	188 ⅄	29·93	212
D Mullingar (Belvedere)	Mr. J. Bayliss	5	1 0	367 T	26·57	154
D Street [Edgeworthstown]	MajorSomersetMaxwell	8	...	...	31·02	193
LOUTH.						
D Ardee (Lissrenny)	T. F. Filgate, Esq.	8	0 10	75 T	25·13	191
Dundalk (Farndreg)	J. Barton, Esq.	5	1 0	90 T	24·15	...
D Greenore	T. Chambers, Esq.	5	1 0	4 L	26·86	146
Ravensdale School	Mr. Locke	8	1 6	200	29·90	127
LONGFORD.						
D Cloondra [Tarmonbarry]	T.Crosthwaite,Esq.C.E.	5	2 0	138 ⅄	24·70	206
D Edgeworthstown(CurrygraneHo)	J. M. Wilson, Esq.	5	1 0	265 T	31·11	181

DIVISION XXII.—CONNAUGHT.

GALWAY.						
D Galway (Queen's College)	Prof. Anderson	5	1 0	22	35·92	213
D Ballinasloe	W. H. Kempster, Esq.	5	3 0	160 ⅄	29·86	194
D ,, (Garbally)	Earl of Clancarty	8	1 0	157 ⅄	33·45	185
D Woodlawn	Mr. A. Porter	5	3 6	300 T	35·16	180
D Ahascragh (Clonbrock)	Rt.Hon.Lord Clonbrock	10	5 4	200 T	36·91	148
D Clifden (Kylemore House)	Mr. T. McNab	5	1 0	105	69·42	229
D ,, (,, Castle)	Mr. W. Farmer	5	0 9	...	59·61	231
Tuam (Castle Hacket)	Mrs. Percy Bernard	5	1 0	...	32·43	215
,, (Gardenfield) M	H. Kirwan, Esq.	5	1 0	155 T	34·85	...
,, (,,) ...*Snowdon*	,, ,, ,,	5	6 0	160 T	34·43	...

DIVISION XXII.—CONNAUGHT—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1893	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	ROSCOMMON.						
D	Athlone	T.Crosthwaite,Esq.C.E.	5	2 0	130 ⅄	25·42	181
D	Donamon (Castle Coote)	Mr. A. Chute	5	0 10	197 T	31·34	185
D	Rooskey	T.Crosthwaite,Esq.C.E.	5	2 0	136 ⅄	26·63	188
	MAYO.						
	Ballinrobe (Cranmore)	Miss Knox	5	0 9	99	40·01	...
	,, (Kilrush)	J. Simson, Esq.	5	1 0	120 T	36·17	...
D	Crossmolina (Enniscoe)	J. Pratt, Esq.	5	0 11	74 T	46·13	230
	Belmullet	The Meteor. Council	8	...	...	42·80	251
	SLIGO.						
	Ballymote (New Park)	R. A. Duke, Esq.	...	...	...	36·20	...
D	Collooney (Markree Observatory)	A. Marth, Esq.	5	1 0	130 ⅄	36·20	241
	,, (,, ,,)	,, ,, ,,	5	16 6	148 ⅄	32·17	239
D	Ballysadare Bay (Glen Lodge)	Vernon Cockram, Esq.	5	1 0	14	38·99	223
D	Sligo (Mount Shannon)	F. M. Olpherts, Esq.	5	4 5	70 B	37·12	206
	LEITRIM.						
D	Jamestown (Albert Lock)	T.Crosthwaite,Esq.C.E.	5	2 0	142 ⅄	28·43	210
D	Ballinamore (Lawderdale)	J.O. Lawder, Esq.,C.E.	5	1 0	275 T	36·64	203
D	Drumshanbo (Lough Allen)	T.Crosthwaite,Esq.C.E.	5	2 0	165 ⅄	37·35	183

DIVISION XXIII.—ULSTER.

	CAVAN.						
D	Lough Sheelin (Arley) No. 2	Major Somerset Maxwell	8	1 0	225 L	30·90	221
D	,, ,, (,,) No. 1	,, ,, ,,	5	1 0	210 L	27·74	220
D	,, ,, (,,) No. 3	,, ,, ,,	5	1 0	270 L	28·64	218
D	,, ,, (Fortland)	,, ,, ,,	5	1 0	325	29·67	227
D	Virginia (The Lodge)	,, ,, ,,	5	1 0	320	30·56	196
D	Bailieboro' (The Laurels)	,, ,, ,,	5	1 0	520	32·74	193
D	Stradone House	,, ,, ,,	5	1 0	280	28·51	186
	Cavan (Water Works) M	,, ,, ,,	8	...	...	27·75	...
D	,, (Farnham)	,, ,, ,,	5	1 0	210	29·53	203
D	Killeshandra (Cas. Hamilton)	,, ,, ,,	5	1 0	250	29·40	200
D	Belturbet (Cloverhill)	,, ,, ,,	5	1 0	...	28·95	208
D	,, (Red Hills)	,, ,, ,,	5	0 9	208 ⅄	31·64	174
D	,, (Quivvy)	,, ,, ,,	...	...	...	29·35	210
D	Dowra	,, ,, ,,	5	1 0	225	38·28	225
	FERMANAGH.						
D	Newtownbutler (Crom Castle)	Major Somerset Maxwell	5	1 0	200?	30·72	184
D	Enniskillen (Florence Court)	,, ,, ,,	8	1 9	250 T	48·56	200
D	Brookboro' (Colebrook Park)	,, ,, ,,	...	1 0	279	38·60	202

DIVISION XXIII.—ULSTER—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground		Height Above Sea Level	Depth of Rain. 1893	Days on which '01 or more fell.
			ft.	in.	feet	inches.	
MONAGHAN.							
D Dartrey [Cootehill]	Major Somerset Maxwell	5	3	0	270	29·94	194
D Castleblayney	,, ,, ,,	12	1	6	350	31·73	194
D Monaghan	,, ,, ,,	5	5	6	240	26·81	202
D ,, (Bellanode)	W.J. O'Neill, Esq., C.E.	5	1	0	...	24·57	127
D Glaslough House	Major Somerset Maxwell	12	3	6	150	28·87	175
ARMAGH.							
Edward St. Station [Newry]	J. L. D. Meares, Esq.	5	1	0	22 ↑	26·52	...
D Armagh Observatory	Dr. Dreyer	8	1	0	205 ↑	24·28	194
D Rich Hill (Fruitfield)	Messrs. Lamb Bros.	5	3	9	...	23·74	217
D Loughgall (Manor House)	Mrs. Cope	5	1	0	205 ↑	22·53	177
D Charlmont Lock [Moy]	W.J. O'Neill, Esq., C.E.	5	1	0	61	24·37	121
D Lurgan (Belle Vue)	F. W. Bell, Esq.	5	0	5	200 ↑	23·41	192
DOWN.							
D Warrenpoint (Summer Hill)	Mr. B. M. Kernan	5	1	0	30 L	29·49	112
Newcastle (Fairleigh)	Rev. J. H. Seymour	5	1	2	12	38·50	166
D Rathfryland (Ballynagappoge)	J. Smyth, Esq., C.E.	5	3	0	300	25·50	155
D Castlewellan (Lough Island)	,, ,, ,,	5	1	0	440 ↑	33·02	151
Banbridge (Katesbridge)	A. Mulligan, Esq.	5	1	0	230	22·91	...
D Seaforde	Col. Forde	8	0	5	180 ↑	27·35	170
D† Banbridge (Milltown)	J. Smyth, Esq., C.E.	8	0	8	200 ↑	24·11	188
D† Waringstown	Col. Waring, M.P.	8	0	8	191 ↑	27·25	174
D Lisburn (Union Locks)	W.J. O'Neill, Esq., C.E.	5	1	0	138	25·58	159
Holywood Water Works	Mr. R. McLean	5	3	6	310 ↑	25·42	133
Donaghadee	The Meteor. Council	8	1	6	30	24·19	208
ANTRIM.							
Aghalee [Lurgan]	F. L. Turtle, Esq.	5	0	6	105	22·72	...
Lisburn (Prospect Hill)	Mr. I. Swain	5	1	6	204	26·92	...
Stonyford (Belfast W. W.)	L.L. Macassey, Esq., CE	5	1	6	437 ↑	26·32	204
,, (,, ,,) ... M	,, ,, ,,	5	0	7	470 ↑	24·89	...
D† Belfast (Queen's College)	Mr. W. Taylor	11	7	4	68 ↑	25·92	170
D ,, (Springfield)	J. Firth, Esq.	5	1	0	150 ↑	34·96	207
D† ,, (Antrim Road)	G. Thompson, Esq.	7	7	0	144 ↑	31·29	216
Crumlin (Langford Lodge)	Rev. A. J. Pakenham	10	4	6	68	22·65	181
†Antrim (The Manse)	Rev. Dr. Orr	5	1	0	150 ↑	29·52	158
Carrickfergus (Dorisland)	G. E. Reilly, Esq., C.E.	5	1	0	250 ↑	37·73	252
,, (South Woodburn)	,, ,,	5	1	0	640 ↑	34·19	228
D ,, (North Woodburn)	,, ,,	5	1	0	735 ↑	37·91	237
,, (Copeland) ... M	,, ,,	5	1	0	380 ↑	31·15	...
,, (,,)	,, ,,	5	1	0	424 ↑	30·00	233
,, (Lough Mourne)	,, ,,	5	1	0	596 ↑	32·02	234
D Ballymena (Harryville)	J. R. Williams, Esq.	5	1	5	150 ↑	36·23	224
D Ballymoney (Balnamore)	W. H. Lawlor, Esq.	5	1	5	50 ↑	33·09	236
Stranocum (Gardenvale)	A. McNeill, Esq.	5	1	0	160	37·45	183
D Bushmills (Dundarave)	Sir F. E. Macnaghten, Bt	5	1	0	162 ↑	35·82	223

DIVISION XXIII.—ULSTER—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground.	Rain Gauge. Height Above Sea Level	Depth of Rain. 1893	Days on which 01 or more fell.
				ft. in.	ft.	inches.	
	LONDONDERRY.						
D	Garvagh (Moneydig)	Miss Morrison	5	1 0	121	34·70	189
D	Londonderry (Clooney Terrace)	Mr. J. Conroy	5	1 0	68 ⇑	38·89	244
D	,, (Creggan Res.)	Mr. J. Hutchinson	8	1 0	320 T	41·01	250
D	Limavady	C. D. H. Campbell, Esq.	5	4 0	81 T	31·70	237
	,, (Drenagh)	C. T. McCausland, Esq	5	1 6	80	34·41	241
	Bellarena	Sir F. W. Heygate, Bt.	5	1 0	12 T	38·69	184
D	Coleraine	J. Kennedy, Esq.	5	4 0	52 T	37·09	207
	TYRONE.						
	Moy (Derrygally)	W. M. Bond, Esq.	10	5 0	42	27·24	...
	,, (,,)	,, ,, ,,	5	5 0	42	29·26	137
D	Sixmilecross Rectory	Rev. R. S. G. Hamilton	5	1 0	400	35·19	221
D	Stewartstown (The Square)	A. Johnston, Esq.	5	1 4	300 T	32·31	190
D	Dungannon (Rockdale)	Col. Lowry	5	1 0	300 T	35·04	218
D	Stewartstown (Ardtrea Rectory)	Ven. Archd. Meade	5	1 0	191 T	34·61	202
D	Omagh (Edenfel)	Col. Buchanan	8	1 0	280 T	36·50	220
D	Newtown Stewart (Baron's Court)	Mr. R. Bell	5	1 0	250 T	36·03	229
	DONEGAL.						
	Killybegs	A. Brooke, Esq.	5	1 0	30	61·17	232
	Lough Eske (The Castle)	,, ,, ,,	...	...	...	59·47	256
	Castlefinn (Finn Lodge)	Sir F. W. Heygate, Bt.	5	1 0	50	31·62	167
	Raphoe (Convoy Ho.)	Col. Montgomery	5	1 0	110 T	47·53	244
D	Letterkenny (Glen Alla)	Anonymous	...	...	...	51·92	246
	Rathmullan	Dr. Loughman	5	1 0	1	47·31	234
	Bloody Foreland (Ardnadrean)	Rev. W. S. Griffith	5	0 9	39 T	44·95	...
D	Buncrana (Rockfort)	T. Colquhoun, Esq.	5	1 0	40 T	39·85	225
D	Moville (Prospect Villa)	Mr. J. Lowry	8	2 0	80	36·04	245
	,, Rectory	Rev. S. R. Craig	5	1 0	110 B	39·70	218
D	Horn Head	C. F. Stewart, Esq.	5	1 0	160	44·78	263
D	Lough Swilly (Carrablagh)	H. C. Hart, Esq.	5	1 0	130	46·57	258
	Malin Head	The Meteor. Council	8	...	...	32·58	226

G. J. S.

NOTICE.

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ARRANGEMENTS

FOR THE

SYSTEMATIC OBSERVATION AND RECORD

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AND

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